

MACDONALD COLLEGE JOURNAL



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THE MACDONALD



COLLEGE JOURNAL

RECENTLY we have heard and read much about the ever growing efficiency of the British Agriculturist in meeting the acute shortage of foods for the British people. When the new bacon contract was announced with so little explanation, many people thought the crisis had passed and that we might take things more leisurely. Fortunately, this wrong impression was corrected and we now know that our very best efforts are still required. In this effort, many difficulties have been encountered and in most instances overcome during the war years. Now a new problem has arisen. Feed shortage is holding up and curtailing production. This is particularly true in the case of hogs which are easily disposed of, but it also applies all along the line to cheese, butter, fluid milk and poultry.

Some explanations have been offered but generally they have not been well received by farmers who, after building up their flocks and herds, are now forced to liquidate at least a part of their holdings.

This trouble has been brought about by the poor crop season of 1943 and shipping facilities as well as very large numbers of stock on hand. Actually, more feed has been shipped east this year than in 1942 and, contrary to what is generally believed, there has been less than five percent of our mill feeds exported. When one considers the demands of Newfoundland and the United States, this amount does not appear unreasonable. At the present time, some relief is being felt by those who have been in short supply. This applies to coarse grains such as barley, oats and to a lesser degree feed wheat, but it does not apply to mill feeds. These may be in short supply for some time. This somewhat

changed condition is due in part to the high priority rating recently given feed grain over other freight. With this rating and under normal shipping conditions, it is anticipated that our estimated requirements will be met.

Considerable discussion has centered around the price factor. This has been disturbing to those who feel that feed has been allowed to go too high without a proportionate rise in live stock prices. Those in authority advise that this apparent rise is due to the lower grades of feed being brought to the ceiling price of the better grades. This enhances the value of the better grades under ceiling prices.

All this adds up to a lack of sufficient authoritative information being given to the farming public. At the present time our situation is not so serious as it might have been. In fact our position is much better than that prevailing in the United States. It could perhaps have been a lot better if the proper steps had been taken earlier, as was advised in this Journal six months ago.

Further changes are likely to develop as the war progresses. For this reason, it is important that farmers keep informed on all matters affecting their interests. The "Feed Situation" is a case in point. Farmers can do much to help themselves by purchasing in carload lots. This always means lower prices. The most important point in this connection is to purchase as far ahead of requirements as possible.

We are pleased to refer our readers to "The Feed Situation" in this issue for further consideration of this subject.

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Dairy Farmers Have Done Well

The Canadian farmer is to be congratulated on his production during 1943, and it is very questionable whether dairy farmers of any other country, except perhaps the United Kingdom, can show a better production record this year as compared with 1942 than those of Canada, stated J. F. Singleton, Associate Director of Marketing Service, Dairy Products, Dominion Department of Agriculture, in a recent address to the Dairy Industries Wartime Conference at Toronto.

Dealing with some of the developments in the Canadian dairy industry during 1943, Mr. Singleton said that, while some dairy products might have been at times in short supply in certain parts of Canada, the condition was not due to decrease in the total milk production, but was brought about by meeting demands for exports of cheese, evaporated milk, and butter under contract to the British Ministry of Food. The inclusion of cheese and dry whole milk in the parcels sent by the Canadian Red Cross Society to prisoners of war, exports of cheese, butter, and evaporated milks to various units of the British Empire and to possessions of foreign countries sustaining governments in exile, and by the increased requirements of the various armed forces of Canada, were also factors to be considered.

It was estimated that total milk production in Canada during 1943 would be equal to, if not exceeding, that of 1942, and would be about 11 per cent higher than in 1939.

Maple Syrup Ration Increased

There is news for both producers and consumers of maple syrup in the announcement made by the Wartime Prices and Trade Board of plans to make it possible to buy in larger quantities next spring under the rationing system.

Commencing March 2nd the value of D coupons for the buying of maple syrup will be raised from 12 to 20 fluid ounces per coupon. The final D coupon in the present ration book, No. 16, which becomes due March 30, will be made good on March 2nd. This will make it possible for any ration book holder to save enough D coupons between now and next March to buy a substantial quantity of maple syrup in one purchase. Eight D coupons become due in each ration book between Dec. 1 and March 2. With the March 30 coupon made good March 2, this will mean a total of nine coupons which could be made available March 2nd for the purpose of maple syrup. Under the new value the D coupon will have for this purpose in March, namely, 20 ounces instead of 12 for each coupon, it will require only eight coupons to obtain one gallon of syrup. As an example, if the D coupons in two of the ration books in a family of four were saved from now until March, there would be sufficient coupons to buy two gallons of maple syrup, with two D coupons left over.

Crop Yields Down in 1943

The latest crop report as furnished by the Quebec Bureau of Statistics shows that yields per acre and total yields of all field crops in Quebec are, with the exception of hay, clover and alfalfa, below those of 1942. The total yield of buckwheat is larger than last year, but this is due to a greatly increased planting, 90,500 acres in 1943 as

against 79,000 acres in 1942. In the table below, the 1942 figures are the final estimates of the size of the crops. The 1943 figures are still subject to changes when fuller information is available. They will, however, be not very far out. Except in wheat, these smaller harvests came from larger total plantings then in 1942: a reflection of the effect of a bad season on yields.

Crop	Yield per acre		Unit	Total Production		Acres planted	
	1943	1942		1943	1942	1943	1942
Wheat	17.0	19.2	bushels	468,000	554,000	27,500	28,700
Oats	23.0	30.0	"	38,870,000	50,580,000	1,690,000	1,686,000
Barley	22.0	27.5	"	3,432,000	3,812,000	156,000	138,600
Rye	15.0	17.7	"	189,000	196,000	12,600	11,100
Peas	14.0	18.4	"	392,000	497,000	28,000	27,000
Beans	14.0	16.5	"	197,000	223,000	14,100	13,500
Buckwheat	20.0	22.7	"	1,810,000	1,793,000	90,500	79,000
Mixed grains	25.0	33.0	"	7,295,000	8,976,000	291,800	272,000
Potatoes	59.0	69.0	cwt.	9,912,000	10,833,000	168,000	157,000
Turnips, etc.	160.0	175.0	"	6,944,000	7,350,000	43,400	42,000
Hay and Clover	1.6	1.4	tons	6,499,000	5,521,000	4,062,000	4,001,000
Alfalfa	2.7	2.4	"	193,000	126,000	71,300	52,000
Fodder Corn	7.3	9.8	"	697,000	904,000	95,500	92,000



Let's Finish

the job!

In the early days of the war when Allied supply lines were still uncertain . . . a stirring pledge came back from the fighting forces: "Give us the tools and we will finish the job."

Food and equipment from American farms and factories are now flowing steadily to every front. But to continue winning battles, campaigns . . . and eventually the war . . . the boys making good *their* pledge must have more, *more* and still **MORE** of everything. If there must be shortages anywhere, let them be here at home — never in the battle lines.

The gigantic task of stocking supply lines has brought two-fold responsibility to us at Allis-Chalmers. We have built — and will continue to build — every single farm tractor, harvester, implement and repair part permitted by our allotments. In addition to producing standard war materials, we have developed special new war machines and are building them in volume. Our monthly war production alone multiplies by several times our highest peacetime record. This we say not in a boastful way but as *our* pledge to the boys who must have *both* food and bullets to win.

Our war leaders tell us that 1944 must be this country's greatest food production year of all time. That can be accomplished only by bringing every usable farm machine into top working condition. Your Allis-Chalmers dealer is prepared to help you *now!* See him right away. . . . Let's finish the job!

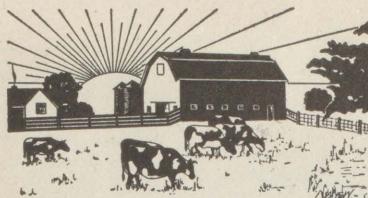


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AGRICULTURE

Articles on problems of the farm

The Feed Situation

by J. E. Lattimer and L. H. Hamilton

The feed situation which is of such vital importance to live stock production and which has been treated from time to time in this Journal, is now being discussed by every one. This is due to the changed price structure and the scarcity of feed on the farms in Eastern Canada.

Because of its importance, information has been secured and compiled from a number of agronomes and the Co-operative Fedérée on the availability of feed and the possible effect of scarcity on the future livestock supplies of this Province. This information as well as that obtainable from other sources forms the basis of this discussion.

Seasonal Contrasts

The present situation is the result of the poor grain crop in Eastern Canada during the past season and the difficulties being experienced in getting grain from the surplus areas in the west to the eastern farmer. It should be observed however that while grain was light in quality and yield, hay and pasture were abundant. This has maintained the milk flow and provided a larger quantity of butter in storage than was on hand last year. This may not be maintained for long since the weather which produced such luxuriant grass also resulted in a poor quality of hay in many districts. This poor quality is an important factor in both the amount and kind of concentrates required to balance the ration and provides a further drain on our already low supplies of protein rich feeds.

Present Situation

War means waste. Waste makes want. Some foods are scarce for both man and beast. Our surplus at the start of the war and a series of good harvests made it possible to have an abundance locally into the fifth year of the war. That is good going. During this period a reorganization of our production has been brought about. This has resulted in a reduction of the area devoted to wheat and a corresponding increase in the area devoted to barley and other coarse grains. This change provided for the great expansion in livestock which took place.

The chief reason for waste, scarcity and rationing is due to our inability to provide transportation from one section to another section and from one country to another country. Scarcity of shipping is the important factor operating at present. In 1918 it was responsible for the reduction of the wheat acreage in Australia while wheat was scarce in other parts of the world. Corn and wheat that

under normal conditions would have been exchanged for coal across the Atlantic have been used for fuel in Argentina during the present war.

Lake boats formerly engaged in bringing feed grains from Fort William to Montreal are now used elsewhere. This season *not one boat reached Montreal* with feed grain. Those in service have been used to take grain from Fort William to Buffalo and the Georgian Bay ports. This has placed a heavy burden on rail transportation. Last year in spite of a bumper harvest in the East a feed scarcity developed before the winter was over. This year due to the bad harvest the amount required in Eastern Canada is estimated to be about double the amount handled last year or nearly 100,000,000 bushels. This present situation indicates how carefully supplies should be husbanded during the present season.

The general fear of food scarcity throughout the world has already indicated the need for a proper balance between vegetable and animal products in order to make the greatest contribution to world nutrition. This balance may change from year to year or from season to season due to war developments.

Amount of Feed Required

The preliminary estimate of crops in Eastern Canada allows the following comparison to be made with the previous year. The wheat crop is 61 percent of that of 1942, oats 60, barley 63, mixed grain 49, buckwheat 123 percent and hay 108 percent of the 1942 crop. Thus only hay and buckwheat are in greater supply than last year. The shortages in comparison with 1942 may be seen from the following table.

Grain Production Eastern Canada

(Millions of bushels) 1943

	1942	Decrease
Wheat	25	15
Oats	148	89
Barley	17	11
Mixed grains	62	30
Corn for grain	14	10
TOTAL	111	

Eastern Canada produced 111,000,000 bushels less grain in 1943 than during the previous year 1942 which was a year of bumper crops. The carry over on farms, from

A CALL FOR MORE EGGS



We regret the shortages in supply which may occur at times owing to conditions over which we have no control.

A chick, on the average, will inherit the characteristics, good and poor, of its ancestors. That includes egg production, color, type, size, vitality and what's most important, **HEALTH**!

And vigorous **HEALTH** means the right feeding for the hens. And right feeding means "**MIRACLE**" HATCHING MASH!

Ensure good hatchability — more profits!

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THE OGILVIE FLOUR MILLS COMPANY LIMITED

the big crop of 1942, may lighten this year's requirements. It should be remembered however that the numbers of livestock were higher on June 1, 1943 than in the previous year.

With over one hundred million bushels *less* grain grown than in 1942 and more animals on hand to feed two alternatives are available. These are reducing the grain ration and liquidating livestock.

Both of these alternatives will be followed to some extent. The first will be applied to cattle and sheep. The liquidation will apply to hogs and poultry, both of which may be reduced or expanded in numbers promptly and easily.

Assistance in Providing Feed

During the year 1942-43 the amount of grain transported to the Eastern Provinces under the freight assistance policy included in round numbers 17 million bushels of oats and 14 million bushels each of wheat and barley. The total amounted to 46 million bushels of these three grains.

The freight assistance policy continues this year. An emergency feeding plan was also adopted some time ago to build up a reserve by providing a lower price for early purchase. Another plan to facilitate movement from West to East was the expansion of the movement direct from Western to Eastern Canada. This direct shipment under the new regulations provides for grain containing 3 percent foreign matter or weed seed instead of 1 percent. This may be helpful but it allows dirtier grain to come

from West to East and in actual operation makes inspection more difficult because of the volume and the complete filling of cars. Considering the danger of weed seeds from the West this may be expensive feed in the long run. Perhaps a change in our regulations to permit cleaning elsewhere than at Fort William or west is in order. In any case improperly inspected feed grain should not be allowed to reach the farmer.

Prices

While the chief difficulty in regard to feed is scarcity, prices do have an important effect upon production and supply. Prices have risen during the past year. The present ceiling price of wheat is \$1.25, an increase of 35 cents over the previous price. Oats and barley have not changed but a bonus of 10 cents on oats and 15 cents per bushel on barley is paid directly to the grower. These new prices are due to the increased demand. This is particularly true of wheat for which there is a ready market in the United States. An effort has been made, through bonusing or concessions, to keep these prices equitable and reasonable to the farmers of the East but this has not been entirely successful.

It is perhaps well to mention also that this bonusing is by no means confined to farmers. It applies to millers, who convert wheat into flour and enables bread to be produced under the ceiling price.

The changing balance between grain and livestock product prices is best illustrated in the following table.

Index Numbers of Prices (1)

1926 - 100

	Cnd Farm Products	Field Products	Animal Products	
1938	73.6	69.0	81.3	12.3
1939	64.3	54.2	81.2	27.0
1940	67.1	55.9	85.2	29.3
1941	71.2	56.5	95.8	39.3
1942	82.5	66.5	109.2	42.7
1943	97.9(2)	86.1	117.6	31.5

(1) Economic Analyst, Ottawa

(2) September, 1943

It may be of interest to note from this table that in September 1943 after four years of war, prices of Canadian farm products are below the 1926 level.

The difference between the prices of field products and animal products is of interest. This difference in price promoted expansion in livestock and livestock products and contraction in wheat growing.

During this period wheat acreage was reduced from 28 to 17 million acres in round numbers, dairy, meat and poultry products increased and hog marketings more than doubled. Most of this reorganization of production took place in Western Canada although there was considerable expansion in the Eastern provinces based largely on the available feed grain from the West.

To what extent and in what direction will this expansion or reduction continue? Fluid milk must be produced in ever greater quantities and close to our centers of population. On the outer fringe of this area where butter and cheese are produced the by-products of the dairy farm should be fully utilized in the production of hogs, calves and poultry. Feeds should therefore be provided in such quantity in these areas that production will be maintained at a high and efficient level. Apart from this, production should be carried on and extended with what feed is available. This extension if any will be affected by the weather conditions, the supplies and the price of feed.

The following table indicates the effect of prices on hog production in Alberta and Quebec.

Bushels of barley required to equal in value one hundred weight of hogs.

Alberta

	Bushels of Barley per 100 lbs. hogs	Number of hogs marketed
1939	33.1	979,898
1940	37.6	1,484,382
1941	30.7	1,947,053
1942	33.8	2,182,342

Quebec

	Bushels of Barley per 100 lbs. hogs	Number of hogs marketed
1939	16	336,575
1940	17.9	524,498
1941	19.6	450,840
1942	21.8	347,707

The bushels of barley required to equal in value one hundred weight of live hogs in 1939 was 33.1 in Alberta, and 16.1 in Quebec. Both Provinces marketed larger numbers the following year. In 1941 and 42 however Alberta continued expansion while Quebec numbers declined.

The reason for the more favorable rates in Western Canada is due to the higher price of feed grain in the Eastern Provinces. This is partly offset by the quantities of dairy by-products on Eastern farms. These by-products have little value except when marketed through livestock.

Present conditions appear less favourable for hog production than those indicated in the table. This is due to the somewhat higher price of feed (approximately \$5. per ton or more) and its scarcity. The low value placed on weanling pigs, \$0.75 to \$3.00 each, is a further indication of the trend. One other factor is also of importance, namely the shortage of protein-rich feeds. This shortage results in a larger quantity of feeds being required to produce a satisfactory market hog and thus lessens the profit.

Further changes are likely to occur. Already some consideration is being given to the removal of all duties on feed grain going to the United States for a period of 90 days. Price changes are likely to be more frequent and shipments of grain may improve. Farmers should therefore be prepared to take advantage of these changes so that as little reduction as possible will take place.

Summary

Many points bearing on the feed situation must be left over from this discussion. Two of these are the need for greater use of water transportation in bringing grain East and the possibility of eastern farmers again using Argentine corn. These are questions for the future. In the meantime some points should be summarized here.

There has been a great reorganization of farming in Canada during the war. The shift from grain growing to live stock production has been substantial. Farmers have done a magnificent job in making this necessary shift. They may be depended upon to make the further changes desired in so far as price regulations permit.

Prices have a definite influence on expansion and contraction. It is the job of prices to bring forward the required supply.

The new bacon agreement anticipates fewer hogs in the future than were provided this year. Sales of sows and prices of young pigs point in the same direction. Contraction may be expected to be most marked in sections depending on purchased feeds. Hog-raising should be maintained in eastern Canada up to the point which uses to the best advantage all the by-products of dairy farming.

There is one danger in the present situation that suggests a necessary warning. No grain that is fit for seed should be fed no matter how scarce feed may be. A scarcity of grain fit for seed threatens as a result of the poor harvest.

How Are We to Control Cattle Lice This Winter?

by W. E. Whitehead

While we are apt to associate the control of insects with the summer season and believe that, during the winter, insects are in comfortable hibernating quarters, there are, nevertheless, some major pests that reach their maximum numbers during the colder months of the year. Among these are the cattle lice. Although they are present on their hosts during the summer, their numbers are greatly reduced, probably because many are destroyed with the shedding of the winter coat, as well as the fact that the thin summer coat is not as satisfactory for the development of lice. However, after cattle are housed in the fall, and their coats become thick, lice increase and spread with great rapidity and their numbers have often assumed considerable proportions before being detected.

Two species of cattle lice are of importance in the province of Quebec. First there is the short-nosed sucking louse, sometimes called the gray louse. This is a relatively large insect, sluggish in its movements, frequently seen attached to hairs by the greatly enlarged claws and numbers of which are often found massed together on various parts of the body from which they suck blood. The other species is the biting louse, or red louse, a very small insect, more active than the preceding species and one that is less often found in dense masses, but rather of more even distribution over a given area. Since success or failure in control may in some cases depend upon a correct identification of the species involved, the accompanying outline figures which show the necessary characteristics, may aid in separating the two species.

Lice are permanent parasites and are of great economic importance, of more importance than some are inclined to believe. Sucking lice feed at frequent intervals, and this coupled with the crawling of both species of insects over the skin, causes intense irritation, judging by the restlessness of heavily infested animals, which rub themselves against stanchions and the sides of stalls in an attempt to rid themselves of the infestation. Periodical examinations should be made and any lice attended to while they are confined to limited areas. Health, brought about by cleanliness and good feeding, goes a long way towards contented and profitable stock.

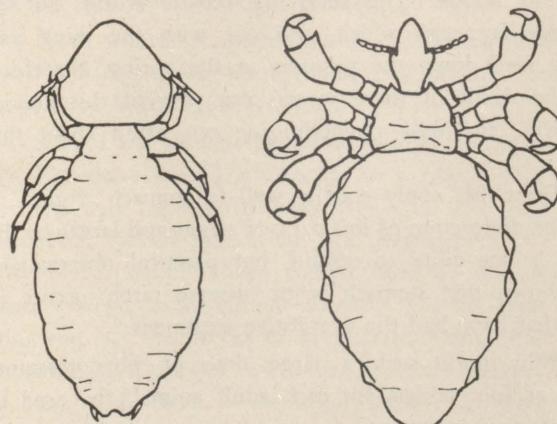
Control Measures

The all-important matter of control may be rather more difficult this winter and the question of what to use will confront some stockmen. Derris which has been widely used in the past will not be so easy to obtain; indications are, however, that certain amounts of derris preparations will be made available for use in warble and lice control. There are some stockmen who will have derris on hand and whose control problem will not need revising, other

than to suggest that the material should be used economically and made up in small quantities as required.

Failing the use of derris one must resort to some other means of control, three of which are referred to here. One, about which the least is known, but which has proved satisfactory in the United States consists of one part of phenothiazine, two parts of sodium fluoride and one part of flour. Without the sodium fluoride, the mixture is only useful against sucking lice. By way of identification, phenothiazine is the material now widely used in the control of internal parasites of sheep and costs about \$2.00 a pound. Secondly, kerosene emulsion is cheap and efficient. One quart of soft soap and $\frac{1}{4}$ lb. of shaved up hard soap are dissolved in 2 quarts of soft water. To this is added 1 pint of kerosene and the mixture is stirred and churned vigorously until a creamy emulsion is produced. Before using add a gallon of water. There must be no free kerosene, otherwise burning may result. Lastly, there is raw linseed oil, the old standby against hog lice. It may be used in controlling cattle lice and imparts an oiliness to the animal's skin which is less favourable for louse development. It should be applied with a brush that is not too stiff and the brushing should not be too hard.

It is a mistaken idea to believe that once a louse infestation has been cleaned up, that is all that is necessary for the remainder of the winter. Lice breed all the time and a few survivors will rapidly multiply. Others that have been knocked off the animals may find their way back again and eggs that have resisted treatment will eventually hatch. Frequent examinations and attacking infestations while they are small are easier than waiting until the infestation is well established.



BITING LOUSE • SUCKING LOUSE
 Small size, broad rounded head. Large size, small pointed head, very large claws.

Common Questions Regarding the Use of Phenothiazine for Preventing Parasitic Disease in Sheep

by W. E. Swales*

The Canadian method of using compound tablets of phenothiazine to prevent parasitic disease in sheep in eastern Canada has been generally accepted and the results during the past three years have been very good. The efforts of provincial authorities and of many individual owners towards making this means of protection a standard procedure for sheep flocks have resulted in a marked improvement in the health and production of these animals. Not only is the health of breeding flocks improved but the intestines of lambs now marketed can be used for the manufacture of surgical sutures and sausage casings — a procedure not possible when nodular disease is prevalent. Many sheep owners declare quite freely that the protection they have obtained has enabled them to stay in the sheep business instead of having to follow the old idea of "giving their land a rest" for two or more years. Whenever a group of sheepmen is assembled a discussion of results and of ways and means of using the phenothiazine method usually takes place. Here are some common questions and answers that may be of interest to others:

Q.—What diseases of sheep are prevented by the proper use of phenothiazine tablets?

A.—Nodular disease, which severely injures the intestines, and stomach worm disease, which is an often fatal anaemia caused by blood-sucking worms. Autumn scours, caused by hookworms and tiny intestinal worms, is greatly reduced.

Q.—Why is it necessary to treat all the adult animals before they go to grass?

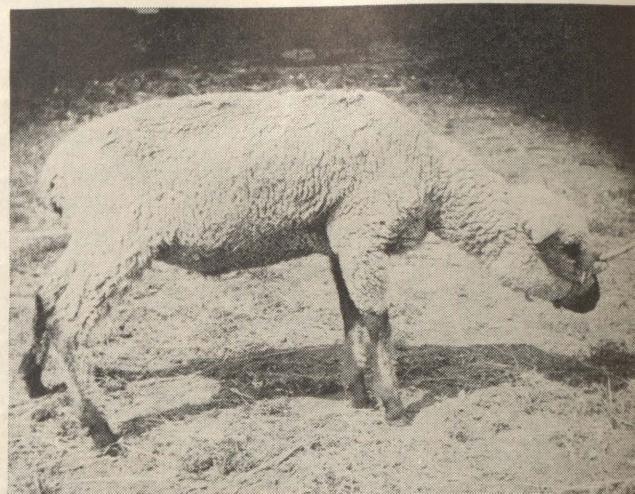
A.—Because the pastures are completely cleansed of nodular worm eggs and larvae by the length and temperature of the winter; thus the worms living in the adult sheep are the only means of carrying the disease from season to season. The surviving female worms in the intestines lay eggs which pass out with the dung and quickly seed down the pastures in the spring, therefore, only the death of these worms can prevent this annual carry-over, and only phenothiazine can bring about this death.

Q.—Does this apply equally well to stomach worms?

A.—The destruction of this parasite's eggs and larvae by the winter is not quite so certain, but practical observations have shown that stomach worm disease rarely occurs in flocks that have had the preventive treatment.

Q.—Why must such a large dose of phenothiazine, (three or four tablets for each adult animal) be used in the protective treatment?

A.—The mature nodular worms live in the lower in-



A typical weakling from a flock in which parasite control was not properly conducted.

testine, about ninety feet from the mouth. If a small dose is given then the drug does not reach this place in sufficient quantity to be highly effective. All along the way it is being converted into a dye, absorbed into the blood and excreted by the kidneys. Three tablets for sheep about 100 lbs. in weight, and four for larger ones, ensure that enough phenothiazine reaches the nodular worms. If we were concerned only with stomach worms, the dose could be halved.

Q.—What is best way of dosing sheep with tablets of phenothiazine?

A.—Generally speaking there is no "best way." Some use their fingers and a mouth spreader, others use a piece of three-quarter inch rubber hose with a wooden plunger, still others have devised metal pilling guns which do not require the use of a mouth spreader. Dr. J. M. Veilleux has demonstrated the latter method as being very simple and rapid; the operator holds the animal's neck between his legs and does not require an assistant. When other methods are used it is important that the assistant holds the sheep firmly with the upper part of its neck between his knees; the head is otherwise controlled by the doser and as each tablet is placed over the "hump" of the tongue, the head is momentarily lowered. Quiet and gentle handling of a flock is important.

Q.—When is the best time of the year for treatment?

A.—In experimental work the period between the end of lambing and the beginning of the pasturing season was found to be excellent. In the Maritime provinces the six weeks preceding the pasturing have been generally used with success. However, the late autumn and early winter treatments, as conducted by the officers of the Health of Animals Service of Quebec, have produced very

*Division of Animal Pathology, Dominion Department of Agriculture, and Institute of Parasitology, Macdonald College.

good results. The autumn treatment, while not, theoretically, being quite as efficient as the spring treatment against the nodular worm, has certain advantages; previously infected flocks enter the winter in better health and pregnant ewes will benefit from this and from not being disturbed at a later date. An individual owner wishing for maximum protection against nodular disease may use the after lambing but before pasturing period; however, for any large-scale campaign or for flocks now suffering from worm infections, the autumn treatment is to be encouraged.

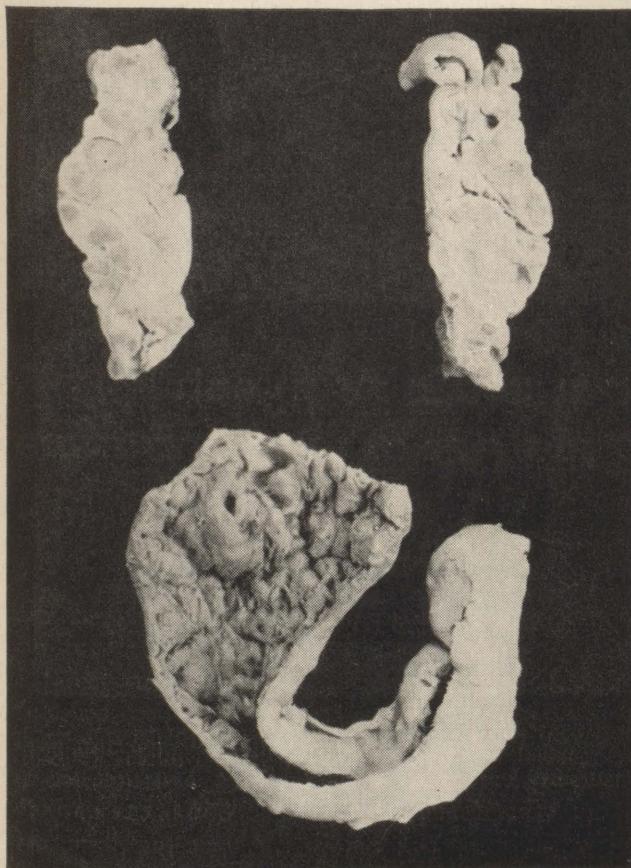
Q.—If a flock has had the large protective dose annually for two years or more can the system be modified?

A.—If an owner is sure that nodular disease, as evidenced by nodules in the intestines of lambs in autumn, has been eliminated, then the dose of phenothiazine can be reduced to two tablets per 100 lb. animal.

Q.—However do you give such large tablets to small lambs?

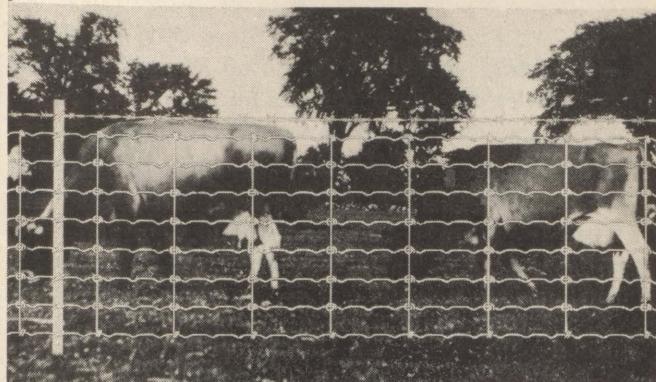
A.—The tablets were never intended for small lambs as the main idea is to prevent contamination of the pastures and thus protect such animals from infection. A lamb weighing over forty pounds can be dosed easily with the tablets if necessary, but it should not be necessary to treat such young animals.

Q.—What if stomach worm disease does appear in the summer and if diarrhoea appears later on?



Parts of a lamb's intestines showing severe injury from nodular disease. The two smaller pieces are sections showing almost complete blockage by nodules of the connecting valve between the small and large intestines.

Keep 'em where they belong!



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There's no question of "Where is my wandering stock tonight?" — when you're protected by "Security" Fencing. This finest Canadian fencing meets every standard of the American Society for Testing Materials Specification A 116. You can have no better assurance of security than . . . "Security"!



DOMINION STEEL & COAL CORP. LTD.

Security Fence Division

Canada Cement Bldg.

Montreal

A.—All sheep owners should watch for signs of lack of energy and blanched eye membranes in lambs. If such danger signs are seen then the animals should be treated in summer. A bluestone-nicotine drench, or one tablet of phenothiazine (as a tablet or broken down in linseed tea, milk or water, and given as a drench) will be effective. The same precaution should be taken to look for diarrhoea in the autumn, but this symptom calls for a treatment with two tablets of phenothiazine.

Q.—From where can phenothiazine tablets be obtained?

A.—From registered veterinarians or from the Canadian Co-operative Wool Growers, Ltd.

Q.—Should the animals be fasted before treatment?

A.—No, there are no advantages in a period of fasting and there may be some disadvantage.

Q.—What special precautions are necessary?

A.—Never handle sheep roughly and do not dose an animal when it is struggling violently. Do not treat ewes during the last few weeks of pregnancy if any other time is suitable; such animals are under a certain natural stress and may even have a condition known as pregnancy disease; this condition might be complicated by any chemical that is absorbed into the blood.

Q.—Will phenothiazine always be obtainable?

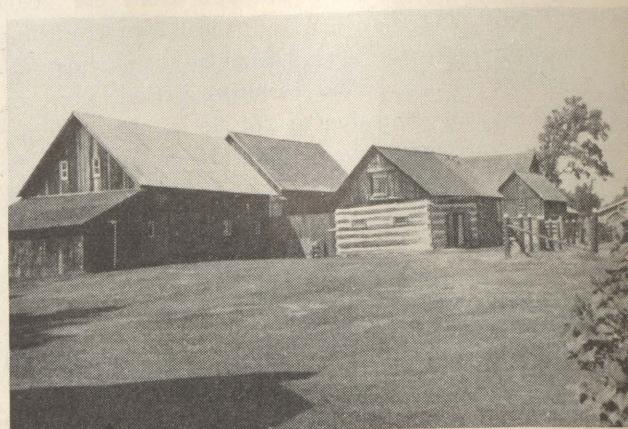
A.—Governmental authorities will continue efforts to obtain our minimum needs, but this drug is valuable and must not be wasted; its mother substance is extensively used in war industry.

Mr. L. A. Smart, Master Farmer

by L. G. Heimpel

The district around the town of Shawville, in the Ottawa Valley, has long had the reputation of being a good farming area, though there are few farms of a highly specialized nature in the district. Because it is located rather too far from large cities to encourage dairy farming as a specialty, most of the farmers in this district carry on diversified or mixed farming. Pontiac County is already famous for its bountiful crops of clover and alfalfa and, no doubt, if there will be any specialization in the future, it will probably be alfalfa raising.

At first sight the farm of Mr. L. A. Smart, located some 6 miles southwest of Shawville, fits in with the above description of Pontiac county farms. As soon as one drives into the farmyard, however, one is impressed with the fact that this is not an ordinary farm but an outstanding one. The orderliness and neatness around the buildings are such as to impress immediately even the most inexperienced observer. This neatness will be found apparent not only around the buildings but throughout the whole farm. On this farm one is immediately impressed with the fact that crops look good, weeds are scarce, fences are in good condition and there is the comfortable feeling that everything is under control. Then, when one talks to the owner, one is impressed that this condition is due to the "personal factor" of the owner, who is a man of great experience in farming, and who in his later years at least, has made a specialty of growing seed grain which finds a ready market among his neighbors but within a surprisingly large radius of the farms. Last year alone, for instance, Mr. Smart distributed among the farmers of the Ottawa Valley between 700 and 800 bushels of seed oats, the varieties being Mabel and Cartier. He also grows OAC No. 21 barley for seed, and threshes some clover seed every year if possible. He finds it a paying business to sell



Neatness is the watchword on this farm.

his own grain for seed and to buy cheaper grain for feeding his own stock.

Good Farm Management Evident

As is the case on many farms of the Ottawa Valley, there is a rather deep ravine running through part of the farm. The banks of these ravines are usually so steep that to cultivate them is out of the question. They are therefore used as permanent pastures and the one on Mr. Smart's farm has springs in its banks which supply water for stock throughout the pasture season. Mr. Smart long ago realized the value of this supply of water, therefore laid out the fields of the farm so that all the fields connect with the ravine, thus making it possible for any of the cultivable areas to be pastured and still permit the cattle entrance to the ravine and its convenient water supply.

The land on the farm is definitely of two kinds, the lower portion consisting of a large flat of clay land, while the higher-lying area is a lighter loam. On the heavier land a four year rotation is practised, two years in grain (or cultivated crops for one year) one year in hay, and one pasture. The lighter area is farmed on a five year rotation, this land being allowed to lie one year longer in grass before it is plowed up.

In order to kill weeds in the manure it is piled in large heaps so as to promote heating and killing of weed seeds. Hay, of course, is an important crop on this farm. Though the season was exceptionally wet this year, haying was practically completed by the end of July, when the writer visited the farm. The crop consisted of 90 loads from 30 acres. Mr. Smart is 73 years of age, yet this crop of hay was taken care of by himself with the assistance of one man; truly a tribute to the physical fitness of the owner who is certainly well past the ordinary retirement age.

Besides being a good crop specialist, Mr. Smart is an outstanding horseman. This is shown by the type and condition of the gray team of Percherons of which he is justly proud. This span of horses has won many prizes



Take your choice.

at the local fairs since they became his property. They are exceedingly fat in spite of the fact that they do all the heavy work on this 100 acre farm, and get a decidedly light grain ration.

A Silver Medal Farm

Five years ago this farm was entered in the Merit Agricole Competition of the Province of Quebec, and though it was the first time the farm was entered, it immediately won a silver medal, standing high in the class. This is just another tribute to the ability of the owner. This year the farm is again entered in the competition and no doubt, it will again stand high in the record of the judges when they make their round.

Flat lands on Pontiac county farms are frequently found to be underdrained. This is also the case on Mr. Smart's farm. The two flat fields on the lower area of the farm have been completely underdrained since about 1913. Several thousand feet of tile had been installed by hand previous to this date but the job was completed by the government-owned ditching machine which was in operation in the county in 1913. About 10,000 feet of tile are installed in the lower two fields which comprise about 35 acres of land. One of these fields is in clover this year. There was no winter killing and the crop was a heavy one. Second cut clover will, as usual, be harvested for seed.

While Mr. Smart is not a purebred livestock man, the quality of his cattle is good, the herd consisting of 10 grade Shorthorn cows and about as many young cattle. Each year it is Mr. Smart's practice to turn off from 6 to 8 head of good quality butcher steers.

When visiting farms throughout Canada one is often impressed with the fact that this is still a young country. In Mr. Smart's dooryard stands an old building which, though it is now used as a horse stable, definitely bears the earmarks of a one-time pioneer residence. The fact is that this was the first house on this farm. It was erected by a squatter from whom Mr. Smart's grandfather bought the farm two generations ago. The present farm residence was built by Mr. Smart's father and the house is in very good



Mr. Smart in his field of Mabel oats — a good stand for this year.

condition despite the fact that it has been standing for 78 years. Though Mr. Smart's name will live long in his community because of its connection with such outstanding varieties of grain as Marquis wheat, Banner oats and the later varieties of early oats which he is now raising for seed, much of the credit for his accomplishments in life, he hastens to say, goes to his helpmate Mrs. Smart. Before her marriage Mrs. Smart was a school teacher and was among one of the first classes of school teachers graduated from Macdonald College. Her graduation year was 1908.

To an Agricultural Engineer it is interesting to note that, though Mr. Smart was an outstanding horseman who, if the writer's guess is right, can get more work out of a team of horses with less damage to them than most men, he is not slow to recognize the advantages of mechanical power. With a gleam in his eye he told of the pleasure of cutting grain with his 25 year old 6 foot binder, the machine being drawn last year for the first time by a light tractor on rubber. Said Mr. Smart, "It is much easier to run the binder as it should be run when you don't have to pay attention to the team. Speed does not slacken when a heavy spot of grain is entered as is the case with horses, and I was rather surprised when, last year, I cut 25 acres of grain in one day with my 6 foot binder."

Today one hears much about the unsatisfactory angles to farming and farm life. After a visit to a farm such as this, however, one comes away with a very reassuring feeling, a feeling which convinces one that with the correct philosophy of life, with care, intelligent management, sufficient attention to the important things which science has made available for the improvement of farming, a very good living can still be made on 100 acres of good land, even though such a farm is located in a district not blessed with nearby city markets. The superior farming methods of Mr. L. A. Smart will live for many years in his community and he certainly has earned the title "Master Farmer."

A Correction

In an article in the October issue entitled "Off Weight Hogs" there appeared the following sentence: "At this particular time, with Western grain hard to get, when we have a smaller harvest than usual here in the East and with the higher prices which prevail for mill feeds, there is absolutely no advantage in shipping heavy hogs to market."

Mill feeds, of course, are under a ceiling price. In commenting on this article, the Feeds Administrator writes us "Millfeeds, which mean bran, shorts and middlings, to the trade in general have not advanced since the basic period — September 15 to October 11, 1941 and in fact have been one of the most consistent products on the market."

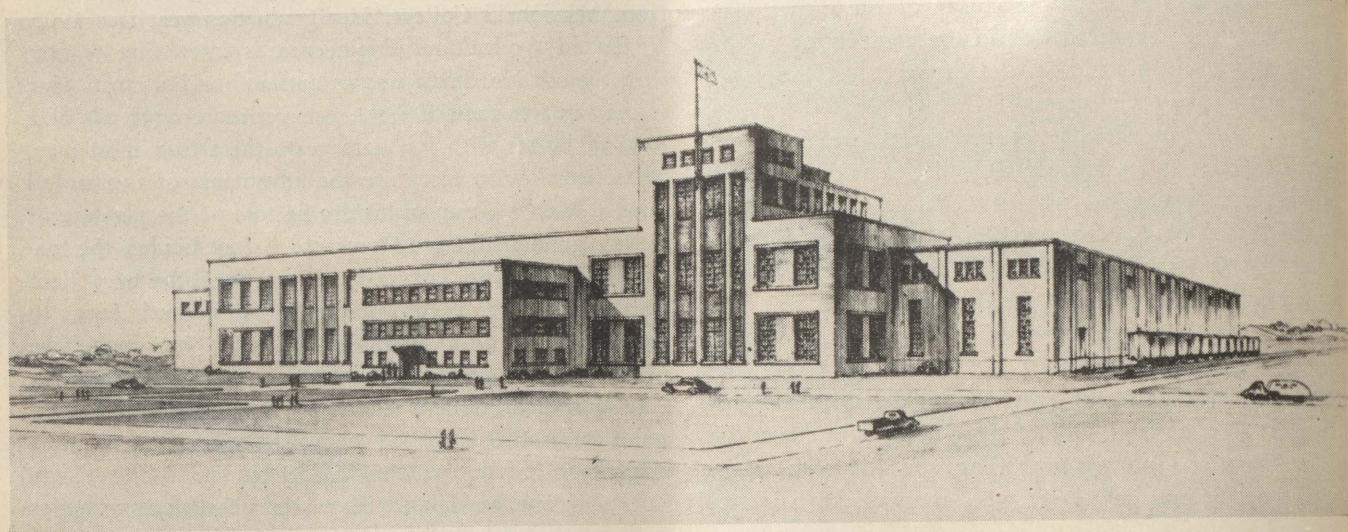
The article in question was written originally in French and the correct translation of the term should have been chopped grain, not millfeeds.



DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

The Quebec Sugar Refinery



This is how the plant of the Quebec Sugar Refinery will look when completed.

Quebec's latest industry, the beet sugar refinery at St. Hilaire, was thrown open to public inspection last month. Cabinet Ministers, Members of Parliament, prominent business men of the Province and representatives of the press were taken on a tour of the huge plant and all were greatly impressed with what they saw. It is probably no exaggeration to say that most of the visitors were not prepared to see such a large establishment. Although most of the buildings are still under construction, the foundations of all are in place and it was possible to form a fairly accurate picture of what the plant will look like when it is finally completed and ready for operation, which will be during the summer of 1944.

It is interesting to note that Canada's first beet sugar refinery was established in Quebec Province as early as 1880. Between 1880 and 1896 three factories were built: one at Coaticook, one at Farnham and one at Berthierville. None of these proved successful, unfortunately. They were built without sufficient capital behind them, beet production was not sufficient for economical operation and the proper machinery for growing the beets and knowledge of the principles of sugar beet culture were lacking. Other plants were established in Canada later, but none in Quebec. At the present time there are five, located in the Provinces of Ontario and Alberta, but these produce enough sugar for only one-fifth of our home requirements and the other 80% is imported.

The St. Hilaire Set-Up:

The sugar refinery at St. Hilaire is at present operated as a Crown Company and represents an investment of three million dollars by the Provincial Government. Eventually, the factory will be operated as a co-operative, owned by and operating for the benefit of the farmers whose crops of sugar beets are processed in it. But, for the time being, the Government, while convinced of the eventual success of the project and of its potential value in opening up a new source of cash revenue to farmers in its territory, was unwilling to allow the farmers themselves to take the risks involved in starting such a large and complicated operation. Consequently, until such time as the factory has paid for itself and is running on a paying basis, the cost will be borne by the public treasury.

A Completely Modern Plant:

The new factory is modern in every respect. In spite of war conditions, it has been possible to obtain all the equipment needed and the buildings themselves, of reinforced concrete, have been planned in accordance with the most recent information in this field of manufacturing. In charge of the plant is Mr. M. R. Allen, a practical sugar factory operator from Ohio, who has spent all his working life in sugar factories. Mr. L. C. Roy, well known to farmers all over Quebec, is the Assistant Manager.

The land owned by the company is 100 acres, of which 132,980 square feet are taken up with the factory buildings, warehouses, etc.

From the Growers' Angle:

It is expected that the plant, when in full operation, will process beets shipped to the plant by farmers living within a 100 mile radius of St. Hilaire. The maximum capacity of the refinery is about 150,000 tons of beets annually, but it is not expected that more than 100,000 tons will be processed during the first years. An intensive campaign is being waged to interest farmers in this relatively new crop,—the growing of which, while not difficult, nevertheless involves some special attention.

Seed will be available from the factory, and the necessary machinery,—seeders, cultivators and diggers, may be bought or rented. One large warehouse at the plant is full of these machines, waiting to be assembled and sent out to farmers next spring. Agronomes and technicians of the Department of Agriculture are ready with all the help and advice they can give to get the field operations under way and during the winter growers' contracts will be signed by the farmers.

The Department of Agriculture has not embarked on this venture without finding out ahead of time if sugar beets can be grown successfully here. For the past nine years, experiments have been in progress to determine if our climate is well suited to sugar beets, and to find out what quality might be expected. In 1934 Mr. L. C. Roy visited the principal sugar-beet districts in the United States and Ontario and, on his return, experimental plantings were made around St. Hyacinthe and in other sections of the Province. Raoul Dionne, then regional agronomist for St. Hyacinthe, directed the work in that district.

These experiments proved conclusively that beets would grow well in Quebec, and analysis of the product showed a high percentage of sugar. In the first year, the sugar content on the average was 14.53%, and yield 8 tons per acre. In 1936 beets were grown by 273 different farmers and 768 samples were analyzed. The sugar content varied from 14.72% to 16.27% and the yield was 13 tons per acre.

In 1942, 838 farmers were growing sugar beets on a small scale and 65 of them shipped their beets to the



This is the factory as it looks today. The drums on the left are the cylinders in which the beets will be washed. The walls of the factory will be built around them.

refinery at Chatham, Ont. Their average return was \$87.30 per acre: the average sugar content of the beets was 15.56%. (Maple sap has a sugar content of about 3%).

The farmers are guaranteed a minimum price of \$6.00 per ton for their beets. This will be paid in December each year. In March, a bonus will be paid, the size of which will be determined by the profits made by the factory after the usual operating charges, reserves for depreciation, etc., have been met.

One question which was raised at the meeting was this. "The guaranteed price to growers is \$6.00 per ton. How much of this will be net profit?" In reply, it was stated that, at \$6.00 per ton for beets, it will take from 5 to 6 tons of beets to pay for the cost of production: anything grown over this amount is profit to the farmer. The average yield is expected to be around 15 tons per acre, and each farmer is being encouraged to plant between three and four acres in beets. It was emphasized by Premier Godbout that there was no intention of suggesting that farmers who are going to go into sugar beet growing should specialize in this crop. Rather, beets are to be grown as a supplementary cash crop on a small area of the farm.

Quebec Province seems to be ideally suited to this type of crop. Soil types and weather conditions are suitable. The question of labour, always a large factor, especially in districts where this labour must be imported, is less important in Quebec, for much of the field work can be done by members of the farmers' families,—the boys and girls. Most farmers in Quebec practise mixed farming and sugar beets fit beautifully into the farm plan: requiring clean cultivation, sugar beet fields will be cleared of weeds and the cultural practices demanded by this crop will eventually put the whole farm into better condition. The field work needed fits in well with other farm operations. Finally, sugar beets will be a cash crop with a steady market, for all the beets that are likely to be produced will find their market at the refinery.

The grower signs a contract by which he agrees to sell all his crop to the refinery. He gets a guaranteed price per ton, plus a bonus paid from the profits from the sale of



Mr. L. C. Roy conducted the newspaper men on a tour of the plant.

sugar, of beet pulp and of molasses, by-products of the refinery. In addition, he may buy molasses and beet pulp from the factory at reduced cost.

This is a point that was emphasized — that growing sugar beets under these conditions removes no fertility from the soil. All that is sold off the farm is the sugar in the beets, which took no minerals from the soil. The farmer who buys back the pulp and molasses for cattle feed and returns the manure to the land, has not impoverished his farm fertility.

Premier Addresses Farmers:

In the afternoon of the day of inspection, Premier Godbout addressed a meeting of farmers of the district, which must have numbered more than 1,000 persons. He made an excellent presentation of the project, explaining the points which have been touched on in this article and emphasizing his belief in the ability of the new venture to give a lift to farming in the St. Hilaire District. He stressed the fact that, though the plant had been built with public funds, eventually it would become the property of the farmers as a co-operative. The success or failure of the plant, he stated, would depend upon the support of the growers themselves. He pointed out that the guaranteed price of \$6.00 per ton was at least \$1.00 higher than was paid anywhere else in Canada. Among the reasons he put forward for the establishment of the plant at St. Hilaire was that the soil was suitable, the Richelieu River provided plenty of water for the factory, and finally, the system of farming practised and the ability of the farmers of the district were good guarantees of success.

Seed Supply in Danger

The Provincial Department of Agriculture views with alarm the situation with regard to a supply of seed oats and barley for next season and is hoping to be able to take steps to meet what is admitted to be a serious situation. (In another column of this section will be found an analysis of the crop yields in Quebec last season as compared with the year before which shows a reduction in the amount of all grain harvested in 1943.).

At the moment a survey is being made to try to find out just how much seed of oats and barley will be available in the spring of 1944, and also to determine what quantity of seed of these crops will be needed for the spring seeding.

But once that information is obtained, there still remains the problem of making the supply meet the demand. This is the problem which officials of the department are trying to solve. They hope to set up an organization which will go out and buy all the surplus seed grain that is available in the province, and make it available to farmers who are in need of it. An appeal is being made to all farmers to let their agronomes know exactly what their situation is in regard to seed oats and seed barley.

There must be a considerable amount of grain on farms which could be used for seed but which, due to the shortage of feed grain, will not be kept for seed but will be fed during the winter. All farmers are urged not to feed any oats or barley that could be used for seed, but to save it for sowing next spring.

Notes about the New Sugar Factory

The St. Hilaire factory will process the crop from about 10,000 acres, starting around the end of September, 1944.

Running at capacity, the refinery expects to pay back yearly a million dollars to the farmers. It will use from 15,000 to 20,000 tons of coal: 6,000 to 8,000 tons of lime and from 600 to 800 tons of coke a year. Every day between 3 and 4 million gallons of water will be needed, which will be taken from the Richelieu River.

The plant can process 1200 tons of beets per day. It will be in operation about 110 days each season and will employ from 300 to 400 men. Between seasons, the mainte-

nance staff will be about 75.

When in full operation the refinery will produce, each year, between 25,000,000 and 30,000,000 pounds of sugar: between 5,000 and 6,000 tons of beet pulp: between 4,000 and 5,000 tons of molasses.

Each farmer is being asked to grow sugar beets on 3 or 4 acres only. 10,000 acres is the objective for 1944. The crop is to be grown in 27 counties on 3,000 to 4,000 farms within 100 miles in all directions of the plant.

Maximum transportation costs on beets from farm to factory is set at \$1.60 per ton.

Conference on Potato Growing

An important conference was held in Quebec on November 22, 23 and 24 to study the question of seed potato growing in this province. Called by the Quebec Society for the Protection of Plants, representatives to the conference included agronomes, technicians, plant pathologists, entomologists, and a number of growers of certified seed potatoes. The object of the conference was to determine the cultural requirements of the potato, to review the

climatic and soil conditions required by this crop, to discuss cultural practices and to try to determine in which sections of the province the growing of good seed stocks of potatoes could best be carried out. Recommendations of the conference will form a basis for the zoning of the potato growing sections so that seed potatoes would in future be grown in localities best suited, from the point of view of soil, climate, ease of combatting disease and insect pests, etc.

Flax Council Meets

The Provincial Flax Council held its annual meeting on November 10th and re-elected its slate of officers: Charles Gagne, President, Andre Auger, Vice-President and E. L. Raynault, Secretary. Members of the Board of Directors are Edgar Lalonde, Vaudreuil, Gerard Lagace, Ste. Martine, Omer Milot, Yamachiche, P. N. April, Ste. Martine and J. Marazin, Montreal.

Representatives of the flax producers stated that at least 2000 tons of fertilizer will be needed for the coming season, and asked if it would be possible to have a special mixture made up: the formulas which are at present permitted to be manufactured are not exactly what is considered best for flax.

Officers of the Council were authorized to meet representatives of the national organization to prepare a submission to the Federal Government asking for financial aid to flax co-ops to permit expansion and for a general policy of encouragement to the flax industry.

Foreseeing a future need for a spinning mill in which could be processed the flax grown in Quebec, it was decided that the sum of \$1.00 should be assessed on each acre of flax grown, the sums thus acquired to be placed in a special reserve by the Co-Operative Fedérée, to be later used to build the mill.

Junior Judges at Toronto

Eight young Quebec farmers went to Ontario during the last week of November to take part in the national finals of the Junior Judging contests. These representatives of the Province of Quebec were the teams which had won the provincial contests which were held during the fall, and the prizes for which were presented at the time of the Sherbrooke Fat Stock Show.

The cattle judging team of Marcel and Xavier Cossette of St. Adolphe de Champlain came second in the finals. The hog judges, Honore Palardy and Jean Louis Beauregard of St. Damase de St. Hyacinthe finished sixth. Judging grain, Jean Marie Mailhot and Benoit Lebleau of Gentilly came fifth and Fernand Denomme and Maurice Beaulieu of Gentilly were third in the potato judging.

A New Bonus for Rams

Any farmer raising grade sheep who has bought at least 5 pure-bred ewes or ewe-lambs during the past autumn and who wants to buy a XXX ram will be paid a bonus of \$5.00 towards the purchase price of the ram by the Quebec Sheep Breeders' Society, provided his dues to the Society are not in arrears.

In making this announcement Mr. X. M. Roderique, secretary of the Society, points out that two important

results are hoped to be achieved by the new policy. In the first place, an important outlet for pure-bred stock will be created, to the advantage of breeders who have this type of stock to sell. Secondly, placing good quality rams at the head of flocks where they are not now found will tend to improve the general quality of sheep in the province.

Mr. Roderique goes on to say that one of the chief obstacles to improvement in our pure bred flocks is the lack of quality in the breeding stock used. Raising pure bred animals is an art and the breeder must not forget that the value of his young stock depends as much upon the quality of the females as on that of the males.

New Ayrshire Record

In the November report of the Canadian Ayrshire Breeders' Association we note Barr Old Style, Imp. owned by the Ontario Agricultural College with 20,684 lbs. milk, 849 lbs. fat, 4.10% fat. This is the Canadian Ayrshire record for milk production on two milkings a day. This cow has now produced 91,012 lbs. milk, 3,678 lbs. butterfat in six lactations. She is also the highest scoring Ayrshire cow in North America from the standpoint of conformation, having been rated "excellent" with a score of 97 out of 100 points under the type classification plan of the Canadian Ayrshire Breeders' Association.

Junior Merit Agricole Winner Honoured

On November 19th last Mr. J. A. Proulx, Director of Services in the Department of Agriculture, presented the province's trophy to Maurice Desy of St. Barthelemy, winner of the Junior Merit Agricole contest for 1943. In addition to his gold medal young Mr. Desy was presented with a silver cup and a cash prize of fifty dollars.

Accompanying Mr. Proulx were Mr. J. E. Lemire, chief of the Extension Service of the Province and Mr. George Maheux, head of the Division of Publicity and Research. Also present at the ceremony were the staff of the St. Barthelemy School of Agriculture, of which Mr. Desy is a graduate, A. Charbonneau, the regional agronomist, and his staff, members of the local Young Farmers' Club, and many other friends of the winner.

New Assistant Director of Services

Mr. Raynald Ferron, Chief of the Rural Economics Branch, has been appointed Assistant Director of Services in charge of the Montreal District.

This is a new position which has been created to relieve the burden of the duties of the Director of Services, Mr. J. A. Proulx. Mr. Ferron will, for the time being, divide his time between Montreal and Quebec, since he still holds his post as Chief of the Rural Economics Branch which he will continue to direct from his Quebec office.

Tons of Dehydrated Food Products

In a recent report by the Agricultural Supplies Board seven Canadian plants have processed vegetables from the 1942 crop which have been delivered to the armed forces in Canada and shipped to Britain in the following quantities, dried weight—potatoes, 1,158 tons; cabbage, 76 tons; carrots, 78 tons; onions, 43 tons, and turnips, 46 tons, in addition to about 300 tons (dried weight) of onions dehydrated at one plant under direct contract with the British Ministry of Food.

Canadian egg powder to the amount of 12,861,641 pounds was shipped by the Special Products Board to the British Ministry of Food during the year ended March 31, 1943. Since January 1, 1943, the official bacteriological analysis of all egg powder being exported to Britain has been, and is, the responsibility of the Division of Bacteriology and Dairy Research, Dominion Department of Agriculture.

The aim of the Record of Performance service for dairy cows is to assist and encourage breeders in the development of higher and more economical production, and to provide reliable information for the guidance of both buyer and seller. In 1942, 27,221 cows were entered for test, an increase of 2,779 over the previous year.

Between early and late growing varieties of vegetables there is a striking difference (up to five times as great) in vitamin and mineral content. Early varieties have most, so that in assessing the nutritive value of a diet, of cabbage for example, allowance must be made for the time of the year.

All poultry below Grade B is unprofitable, state Canadian poultry authorities.

STRIPPINGS

by Gordon W. Geddes

For once, at least, our lime is all spread in the fall. I expected to hire a neighbour's sower to do the job but a sick spell delayed me so that he was using it himself. However, it had rained so much that the lime did not spread well by machine anyway. I went at it with a shovel and managed to get it all out between showers. The last of it was about like spreading wet concrete but I made it go over the field at an average of about $1\frac{1}{4}$ tons per acre. CIL soil tests show that next fall some of the land which has never been limed will need 2 tons per acre.

The tests will also cause some change in our plans. I expected to manure the potato field quite heavily and use fertilizer as well. However, they recommend only six or seven tons per acre of manure and 1000 lbs. of fertilizer. If we can get as good a crop of spuds that way it will leave more manure for hay and pasture land. But it is so wet that some of the fields can't be top-dressed yet. The report on a pasture field which was plowed and re-seeded a few years ago confirmed our suspicions as to the reason why we did not get better pasture. It advised 300 lbs. per acre of 4-12-6 with heavy manuring for grain to be pastured. Before re-seeding for pasture it should have $2\frac{1}{2}$ to 3 tons per acre of lime with 500 lbs. of 0-14-7 applied before seeding and 250 lbs. of 2-12-4 at seeding. Add to that 35 lbs. of high-priced grass seed of various kinds and one would have a considerable investment per acre of pasture. At the same time we spent quite a bit last time and didn't get much for it. If by doubling the investment we could quadruple the returns, it would be worthwhile. Anyway, we'd like to gamble on a small piece and see what happened. Certainly if one got good pasture by doing that, it would pay to take care of it afterwards. That would mean proper grazing, clipping when needed and some fertilization to keep the land from getting back to its present state. We decided some time ago

that we preferred to put fertilizer on pasture before seeding and on good grass rather than attempt to make grass grow before seeding by fertilizing where there was none.

Mr. Gardiner's speech to the London Kiwanis leaves a bad taste in the mouths of many eastern farmers, especially those patronizing the creameries. Referring to the feed situation he felt that enough western grain would be brought east to supply us and that it was being supplied to dealers at the same price as last year while milk and livestock were selling higher. Last year we were paying \$1.55 for ground wheat and \$1.70 for barley meal though practically no barley was bought because of the higher price. This year we have been paying \$1.80 for barley and wheat is from \$1.90 to \$2.00. The new bonus will bring wheat back in line with barley but not with last year's wheat price. Meanwhile, butterfat is the same price as last year at the creamery.

It is also a bit aggravating to hear reports of the fine fall we have had to get our work done. Fine days have been as scarce as cuts in feed prices and when it doesn't rain the land is so wet that it is almost impossible to work. We planned for a tractor to do the plowing to get time to spread the lime and look after storage of this winter's feed and next spring's fertilizer. The first time the machine came all went well. After two wet weeks it came back and everything went like a word that rhymes with well but just shouldn't appear in print. I was working too far away to know what was going on or I could have improved matters some. As it was I had to pay for four extra hours and then spend seven hours with a team wading in the mud trying to finish up the missed spots. Then I had a field which looked as if the Germans had dug in and the Russians had dug them out again.

Lest you may think the bad weather has soured me completely I must tell you that Trixie got sick of having me try to shove vitamin pills down her throat and started in to eat them herself. They are pretty hard to get cracked

but once she gets them started, down they go. And the Farm Forum is going again and we're trying to increase our membership. And we really have the National Film Board movies showing here at last.

Now I'm sufficiently cheered up to wish you all a Merry Christmas and a Happy New Year. Oh yes, and a Scrappy New Year for Hitler and Tojo.

Poultry Health Greatest Asset

Cost of production, health of stock and good management go hand in hand in the poultry industry. Notwithstanding all that has been said about improved marketing, more money can be saved by improved methods and better planning inside the farm gate than beyond. The chief costs are feed, labour, stock replacement (mortality), equipment, and costs of taxes, interest, and depreciation. Of these costs, the two most readily controlled are feed and stock replacement. The cost of feed may vary as much as 20 per cent, according to the methods used. The cost of stock replacement has a direct relation to mortality. A high degree of health is an important factor in the poultry industry.

Grain for Rabbits

Rabbits eat more at night than during the day, so that it is a good plan to make the evening meal the larger of the two daily meals, with mixed hay in the morning, and mixed hay and grain in the evening. Rabbits should not be expected to live on greens only. They require hay and grain at all times. Green feed from gardens, such as carrot tops, lettuce, and cabbage, should form only a small part of the ration.

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It is important, therefore, to see that *your* hens get a feed fortified with VIDOVA. This "laboratory controlled" vitamin supplement is fully stabilized and assures your hens a regular, *correct* amount of Vitamin "D" *throughout the season*.

Hard-headed poultrymen have proved in practice that feeds fortified with VIDOVA keep their flocks laying well *all season*. See that you get one of these extra value feeds.

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CO-OPERATION AND MARKETING

A page of interest to members of farmers' co-operatives

QUEBEC—A BANNER CO-OPERATIVE PROVINCE

by R. Alex Sim

The Superior Council of Cooperation for Quebec held its Fifth annual congress in Quebec on November 12, 13, 14. This year the theme of the conference was broad—an Inventory of the Co-operative Movement in Quebec. In past years the themes have dealt with more specific problems such as mutual life insurance, and co-operative education. The conference was well attended with about 500 registered delegates from all parts of Quebec.

The papers delivered at the Congress (they will be available in English in printed form), will read like so many chapters of a book, the diverse sections fitting together into a unified co-operative plan of the province. And though the Congress met to consider co-operation in Quebec—the Council as Father Levesque stated emphatically in his opening presidential address, is not isolationist.

Gerard Filion, general secretary of the Union Catholique des Cultivateurs in reviewing the progress of co-operation in Quebec among the French people stated that in 1930 the movement was not in a healthy state but the depression seemed to have saved it. That it is now continuing to grow is evident to anyone who studied the last financial statement of the Co-operative Fédérée. Mr. Filion presented a table showing the growth of co-operation in the last 13 years—

	1930	1943
Agricultural Co-operatives	75	500
Credit Unions	125	737
Consumer Co-operatives	0	125
Mutual Fire	175	305
Fishermen's Syndicates	0	16

Further he showed that in 1930—the U.C.C. and the

Co-operative Fédérée were both in business competing against each other. Now the U.C.C. is the educational body and the Fédérée is in the business field alone. The Credit Unions were not federated then, nor were the Mutual Fire Insurance Companies. Now they stand together in strength. And further, the whole co-operative movement is joined in a common front in the Superior Council of Co-operation.

As the only English-speaking member of the Council, representing Macdonald College, I was asked to report for the English co-operatives. These are not nearly as numerous, of course, as the French ones. There are several co-operative stores and credit unions in Montreal and many

co-operative enterprises such as the Ormstown Mutual Fire Insurance Co. Many of the agricultural societies reported by Mr. Filion have English members. The Cowansville Co-operative is an example of a co-operative which got its incentive from Farm Forum members but which was later enlarged to include French as well as English members. A new chapter in co-operative work among the English is soon to be opened if the interest shown recently at Shawville, and other centres is typical.

The Congress at Quebec was an exhilarating experience, the findings of which should be published far and wide—in English—throughout Canada. It would do much to offset other adverse and misleading reports that find their way abroad all too easily.

PROGRESS AT COWANNSVILLE

The Cowansville Cooperative Creamery has steadily grown in volume of business, and it is now in a favourable financial condition, according to a letter just received from Guy Shufelt.

During the last eleven months 235,000 pounds of butter have been made. This volume justified the installation of a new "Vane" type of churn with a 1500 pound capacity. The total cost, \$1,568.93, was reduced by a discount of 18% available because the Creamery is affiliated with the Co-operative Fédérée. Already the Co-operative has been able to pay \$1200. in cash on this new installation.

A number of new members have joined and the Annual meeting to be held early in the New Year should see good reports.

Co-op Business in Canada

For the first time in 11 years, the reported membership of farmers' co-operatives exceeded 500,000 with the value of total business more than \$250,000,000 in 1942. A. E. Richards, agriculture department economist, reported recently.

Co-operative reserves and surplus reached a high point of \$46,000,000. Of 1,722 co-operative societies reporting in 1942, 558 handled food products valued at \$9,000,000, and 180 associations handled nearly \$1,500,000 of clothing and home furnishings for their members and patrons.

The associations included the business of about 250 urban consumer societies. Petroleum products handled by 561 associations were valued at \$7,000,000.

FILL THE LAND WITH CO-OPS

Soldier Writes This Message From England.

"Let me see our own land filled with co-ops on my return!" Thus wrote First Lieutenant Robin E. Taber of the U. S. Air Corps, shortly before he was reported "missing in action" over Germany. His letter written from somewhere in England said: "Greetings from the land of the first cooperators! I am surrounded by economic monuments to the solidity of our 'idea with handles'. The nearest co-operative society has 28,000 members out of a population of 40,000. It has 27 grocery branches, a central store for draperies, men and women's furnishings, baby shop, hardware shop, funeral service, bakery, etc. and a splendid hall for meetings, parties, banks for its members and funds to spare. The Borough Council owes the Co-op \$2,000,000. If the English, on their meager salaries, high taxes, and tight rationing can maintain this, we can exceed them! Let us see our own land filled with co-ops on my return." Lieut. Taber, "missing in action" may still be alive. It will be the prayer of all who read this that he is, and that he will return safely to his native land.

—Co-operative Consumer.

C. U.'s in Alberta

The Credit Union movement is going ahead rapidly in Alberta this year. There are now 121. In its early stages it was largely confined to the urban centres of Edmonton and Calgary. During the past year it has made rapid progress all over the province. Since the Co-operative Conference held in Edmonton in March of this year, it has taken root in many communities already served by co-operative stores. One of the unique credit unions is that known as the Co-op Credit Union No. 100, which was organized about two months ago by the co-ops in Edmonton. Its membership is open to co-op employees and members, and members of their families. While only in its infancy it has great possibilities for the future.

Co-operation in the English speaking world has developed from opposite poles. In the United States and Canada, it has been largely a movement of farmers as producers who have sought to increase their income by getting some of the middleman's profit and by increasing the income from their sales through improvement and standardization of their products. In the British Isles, co-operation has been a movement of consumers to reduce living costs by eliminating the profit of middlemen and even by entering the field of production, including farming.

The winner of the 1942 Gold Medal in the Agricultural Merit competition, Mr. Pierre Turgeon of St. Anselme de Dorchester, has been made a member of the Order of the British Empire for distinguished service to agriculture in Canada.

Market Comments

November recorded a decline in live stock prices with the exception of hogs. Prices of most other things remained fairly uniform.

Supplies of live stock were heavy during the month. The meat trade voice the familiar complaint that demand is keenest for the better cuts of beef indicating the high purchasing power of consumers generally.

The month recorded a scarcity of eggs particularly Grade A large. This seasonal condition is about past as reports of increased supplies are reported at the end of the month.

The new hog price was announced to apply on and after the middle of November. This promptly raised the price of hogs, B.1, dressed by 55 cents per hundred dressed weight. Lack of demand for weanling pigs points to decreased interest in hog raising. In the meantime hogs are coming forward at present at the rate of slightly over 200,000 per month and taxing the capacity of packing plants.

Rationing of tinned milk is now started in some districts. The aim is to make sure of the necessary distribution of the supplies essential to infants and those who for any special reason require such particular preparations.

Preliminary reports of crop yields in the five eastern provinces show over one hundred million bushels less grain harvested in 1943 than in the previous year of bumper crops.

Quebec province records an increase of one million tons of hay, a decrease of 400 tons of silage and roots and a decrease of 14,000,000 bushels of grain in round numbers as compared with 1942.

Trend of Prices

	Nov. 1942	Oct. 1943	Nov. 1943
LIVE STOCK:			
Steers, good, per cwt.....	10.55	11.90	11.77
Cows, good, per cwt.....	8.20	8.97	8.57
Cows, common, per cwt.....	6.75	6.82	6.42
Canners and Cutters, per cwt.....	5.70	5.00	4.77
Veal, good and choice, per cwt.....	14.95	16.00	15.88
Veal, common, per cwt.....	10.50	13.63	13.19
Lambs, good, per cwt.....	12.50	11.94	11.72
Lambs, common, per cwt.....	10.50	9.94	9.72
Hogs, B.1, dressed, per cwt.	16.40	16.60	16.88
ANIMAL PRODUCTS:			
Butter, per lb.....	0.36	0.35	0.35
Cheese, per lb.....	0.20	0.21	0.21
Eggs, Grade A large, per doz.....	0.50	0.50 $\frac{1}{2}$	0.50 $\frac{1}{2}$
Chickens, live, 5 lb. plus, per lb.....	0.22	0.27	0.27
Chickens, dressed, milk fed, A per lb.....	0.31	0.31	0.34
FRUITS AND VEGETABLES:			
Apples, Quebec McIntosh, extra fancy, per box.....	2.50-2.75	3.50	3.25-3.50
Potatoes, Quebec No. 1, per 75 lb. bag.....	1.25-1.40	1.50	1.60
FEEDS:			
Bran, per ton.....	29.00	29.00	29.00



THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

Education as We Would Like It

by Agnes L. Patterson

Although education has made and is making rapid strides forward, it must be admitted that in many respects it still leaves much to be desired. The main object of education should be to prepare the child for adult life, to equip him to meet its difficulties and shoulder its responsibilities in the best way possible. Thus we must strive to educate our children to be better citizens and happier Canadians.

Good health is one of the most important aids to happiness. There is the story of the dirtiest looking pupil in the class getting the highest marks in the Health Tests. This only goes to show that knowing and doing are two entirely different things, and that children must be taught to put their knowledge into practice, not only in health but in many other things as well.

Special Training

Schools should prepare children to make a satisfactory living. Each person has some special ability which can be brought to the fore by the right kind of training. A great number of square pegs in round holes could thus be avoided. It is to be hoped that in the future teachers will be better equipped to give more and better vocational training.

Too much stress has been laid in the past on academic training. Children have stored up knowledge which in the course of their lives they have had little occasion to use. It would have been more to their advantage if they had spent that time in acquiring knowledge of more practical use to them.

As girls are expected to be generally more domesticated than boys they should have opportunity to take up subjects along these lines. Wives who cannot boil water without burning it may not exist, but those who cannot boil porridge without burning it certainly do. Household Science has been taught in city schools for a goodly number of years, as well as in some High Schools, but there still remains a great deal to be done in rural and elementary Schools. Those who, in all probability will become farmer's wives need to be taught domestic science which will be of greater use to them in their future lives than a long list of Latin verbs. The same idea applies to boys. In cases where manual training makes more appeal to them than the subjects offered the schools need the necessary equipment to teach it.

It sometimes happens in cities that the boys may have

a more useful education than the girls. The idea that the daughters of the family do not need much education is still all too common, and thus the girls are allowed to go out into life without the training they should have to fit them for life.

Our Future Farmers

In many rural districts it will be found that the reverse is true, and that the girl has most of the educational opportunities in the family. The help of the boys is often a valuable factor on the farm, and so the days of schooling are shortened for them, while the daughter may go on to greater opportunity in education, even if she ultimately comes back and marries a farmer. Farmers need education, both husbands and wives, if the standards of life are to be raised in rural districts.

Free Text Books

It is a dream of the future that the Government will grant free text-books, now that the Bill for Compulsory Education has been passed in Quebec. This should teach children respect for books, as they will be loaned to them for each term, and will have to be returned at the end of the school year. The considerable saving affected by free text books might easily result in more pupils being able to go farther in education than is now in many cases possible.

Another ideal is that every man and woman, no matter what their station in life, should be equipped with a good education, one which will enable both husband and wife to keep abreast of the times and to have an intelligent interest in all the great questions of the day.

Education does not cease with school life but should go on into old age. There is truth in the old saying: Never too old to learn.

NEW REPORT FORMS IN USE

The provincial Treasurer, Miss A. Pritchard, has issued to Branch Treasurers explicit directions for sending in remittances, etc., which should aid in keeping the records uniform.

Mrs. H. Smith, Provincial Convener of War Services, has sent out forms to the Branch and County Conveners of her department. These will provide an easy method for compiling the War Work done in the Province. Branch Conveners should send the completed forms to Country Conveners, who will condense them and forward the material to Mrs. Smith.

THE PROBLEMS OF A TOOTH

by G. A. LeBaron

There are seven ages of tooth life which we experience during a normal life time. Here they are presented for your consideration with some relative problems and answers.

The First Age—is a pre-natal one. The expectant mother is responsible, during this period, for her own dental health, as well as that of her expected baby. Nature, however, gives the unborn child some protection of its own, by allowing it to take its supply of tooth-building material directly from the mother. If the mother's diet does not include foods containing sufficient lime and calcium, her own teeth tend to decay.

Q.—What foods contain these essential substances?

A.—A quart of milk per day — for calcium vegetables, e.g. spinach, cabbage, celery, etc. Cod-liver oil or some other source of vitamin D.

Q.—Is it true "Every child a tooth"?

A.—With special daily care of the teeth, regular visits to the dentist, and correct diet, no such loss occurs.

The Second Age—extends from birth to the appearance of the first temporary tooth.

Q.—Should an infant be given cod liver oil or its equivalent every day?

A.—Starting when the infant is about two weeks old, it may be omitted only during the summer months, when daily sun baths are recommended in its stead.

The Third Age—begins with the eruption of the temporary or "baby" teeth — between the ages of six months and two years.

The Fourth Age—The first four permanent molars erupt at the age of six years. These teeth are sometimes mistaken for temporary teeth, because of their early appearance. Such an error may lead to their loss.

The Fifth Age—stretches through the years to about the age of twelve when the temporary teeth have usually been replaced by twenty-eight permanent teeth.

Q.—Should the temporary teeth be filled when a cavity occurs?

A.—The temporary teeth should receive the same care as the permanent ones, to preserve them until the permanent are ready to erupt.

Q.—If a temporary tooth must be extracted, how can the space thus formed be retained?

A.—The dentist may substitute a "false tooth" to keep the space, thus allowing the permanent tooth to erupt without overcrowding.

Q.—What causes an abscess to form on the gums at the time the temporary teeth are being replaced by the permanent?

A.—The death of the "baby" tooth is responsible for the abscess — it seldom proves serious.

Q.—Should a poultice be applied to such an abscess?

A.—If necessary, a tiny linseed poultice may be used directly over the gum area affected — never to the outside of the face.

The Sixth Age—At about sixteen years, the four wisdom teeth begin to make their appearance, at the extreme end of the jaw bone. When there is trouble in "cutting" these teeth, X-Ray may be needed to determine the correct procedure.

The Seventh Age—A mechanical age of artificial dentures.

Q.—Should removable dentures be taken out at night?

A.—The usual advice is against such removal.

Q.—Should hot or cold water be used when cleansing "false teeth"?

A.—Cold water is safer — the foundation of these dentures is easily affected by water only slightly too hot.

Q.—How often should artificial teeth be cleaned?

A.—They need the same cleansing that natural teeth do. It is apparent that we do not literally inherit "good" or "bad" teeth. We are, nevertheless, dependent upon the preceding generation for our start in dental health. Therefore, it behoves us to consider our responsibility, of a goodly tooth heritage for the coming generation. For dental health, the future is rosy; and we may hopefully look forward to a not too distant time when science will have banished all our dental ills.

A BALANCED DIET

by H. Mooney (Nutritionist)

That we as Canadians should know more about diet, and put into practice what we know, is evidenced by the following two paragraphs copied from a recent Canadian magazine. Bruce MacKinnon says: "20,000 young Canadians out of 50,000 rejected by the armed services in three months; half a million children undernourished; National death rate highest of 22 leading countries. Our health front is a Second Front where we face a major battle which must be won."

Then this by Helen Campbell: — "Food is a Weapon and it is not how much you eat that matters, but what you eat and how."

People should eat well-balanced meals. By a well-balanced diet we mean one that has a proper amount of each of the needed food elements. If we allow coffee and tea to crowd out milk, our diets will be seriously unbalanced. Good nutrition is just good eating sense. The busy housewife hasn't time to be worrying over vitamins, minerals and proteins. But she should have time to feed her

family the right amount of right food prepared in such a way that the nutritive value is saved and the finest of flavours developed. That is the second front every home-maker should be fighting on.

The right foods are called the protective foods, and should be a *must* in every day's menu plan. Serve the protective foods every day and you need not worry over vitamins, minerals and proteins, because they abound in those very necessary food elements.

The protective foods are milk and milk products, fresh and cooked fruits, vegetables raw or cooked, meat, fowl, fish, eggs, whole grain, or vitamin B added white bread, whole grain cereal, cod liver oil from October to June for the children and plenty of water for every one.

After you have included the protective foods in your menu you can add cake, cookies, pies, and relishes with a clear conscience. But always buy the protective foods first, the frills afterwards.

You would not think of buying with your clothing allowance money, rings, bracelets and ear rings before you bought the needed dress, coat and shoes. It is far more detrimental to your health to buy the frills in food before you buy the protective food.

The next thing to consider is the amount of protective foods needed by every member of your family every day.

Every adult needs a pint of milk a day and every child needs a quart of milk per day. Remember milk at any price is the cheapest food that you can buy. It is easily digested, it is a rich source of complete protein, it is a good source of calcium and phosphorus, and contains some iron in an easy assimilated form. It is a good source of A and G vitamins. One may use pasteurized whole milk, skim milk, milk powder or canned evaporated, unsweetened milk may be used.

Part of the day's supply of milk may be used on cereals, in puddings, cream sauces, cream soups, ice cream and custards. Some cheese may be used to supplement the milk, one ounce of Canadian cheese may be used instead of a glass of milk. Cheese is a concentrated food and should be combined with other foods to make it easier to digest. The rest of the milk may be used as a beverage. Remember the old-fashioned theory "A tooth for every child". That is no longer necessary if the expectant mother used a quart of milk per day. Some nutritionists advocate a quart of milk per day for every boy until he is a man grown and a quart of milk per day for every girl until her last baby is weaned.

The next protective food we need daily is two servings of fruit, one serving should be of tomatoes or citrus fruits, such as oranges or grapefruit or one serving of tomato or citrus fruit juice. Tomatoes have just half the vitamin C content of citrus fruit. Therefore, serve twice as much tomato juice as citrus fruit juice. The other serving of fruit may be canned local fruit or dried fruit, or apples raw or cooked.

Then we need one serving of potato and two servings of other vegetables, at least one of them a green or yellow vegetable. Serve salads often especially cabbage salad. Serve raw vegetables such as carrot or turnip sticks.

The days allowance of bread should be from four to six slices per person, use whole wheat or Canada Approved bread with butter, one serving of whole grain cereal for breakfast. A hot cereal is better than a cold ready-to-serve bought cereal, besides being cheaper.

Meat once a day for the average person is quite sufficient and all that is wise. Cheaper cuts of meat are just as nutritious as the more expensive cuts and Heart, Liver and Kidneys exceed the more expensive cuts in food value. Serve at least one of them once a week.

Eggs one a day especially for the children or at least eggs three times a week for every one. Eggs are next to milk in their food value.

You see how easy it is to serve a balanced diet. Let every member of the Q.W.I. join in the nutrition campaign now under way in Canada.

Thus win the battle on the health front making a fitter post-war generation.

Q.W.I. NOTES

Mrs. C. S. Smallman, Provincial President of the Q.W.I. wishes the branches throughout the Province to know that the recent notices sent out to the Branches asking for renewals to Macdonald College Journal were due to a misunderstanding, and that the Journal is to be continued free of charge to all members of the Institutes as formerly. Argenteuil County. Lachute had a visit by the County President — planned their work for the winter. Afternoon tea was served to the High School teachers. Brownsburg had a discussion on the making of jams and jellies. Two quilts made for the Red Cross. Frontier filled 8 ditty bags. Two brides received gifts of silver. A demonstration on bandaging given and advice in cases of accidents by poison. Jerusalem & Bethany — papers read on education. Lakefield arranged to send boxes to local boys in the forces overseas. \$57 was realised at a Hot Dog Social and quilt raffle, held at the home of Mr. Austin Kyle. Two ditty bags filled.

Morin Heights made \$16.10 by the drawing of a quilt. Enrolled one new member. Mille Isles sold War Savings stamps to the amount of \$6.25. A musical play and concert given to aid funds by the Boy Scouts of Camp Tamaracouata. Pioneer filled two ditty bags — donated \$2 towards lighting the Hall. Articles read on Victory Gardens. Upper Lachute — East End filled 6 ditty bags — parcels to be sent to 8 boys serving overseas.

Bonaventure County. Mrs. Cameron E. Dow, National President of the F.W.I.C. is a member of Bonaventure County Institute, and at the last County gathering of the clubs gave an interesting account of the recent visit of Her

Royal Highness Princess Alice to the Branch at Port George, B.C. and an outline of her address, which contained many suggestions for post-war work for the Institutes. The session closed with a chicken supper which was enjoyed by all.

Compton County. Canterbury Branch had a paper on handicrafts in Canada and their value in every day life by Mrs. Harrison. \$3 in cash were voted for school prizes.

Huntingdon County. Huntingdon Branch has secured a McGill Travelling Library and organized a reading club. The Branch pledged itself to raise \$100 for the new County Hospital, and jams and jellies were also donated. Aubrey-Riverfield discussed home economics and public health matters. Hemmingford Branch had a talk by Mrs. C. E. Petch on the storing of fruits and vegetables, and assisted the local school in establishing a skating rink. Howick had a diversified programme which included a synopsis of a book on China, a demonstration on the use of parowax, and Armistice Day Readings. Franklin Centre had a paper on the place of women in the post-war world. Dundee had a reception for the teachers of the local school staff and a paper on the schools of the future. Ormstown Branch studied Consumer News and had an address by Dr. Quinton on health and welfare, diseases and their prevention. This Branch has a study club among its members.

Papineau County. Lochaber Branch had a paper by Mrs. J. D. MacIntosh on international relations. A paper on the activities of the Health Unit was read by Mrs. Archie Devenney. An address by Miss Elliott of Ottawa on Home Economics was heard at the County meeting which was held at Lochaber.

Pontiac County. Onslow Corners has made three quilts for donation to worthy objects, and Clarendon had an interesting discussion on compulsory education, led by Principal Tolhurst of the High School at Shawville. Bristol Busy Bees discussed the benefits of having women on the School Boards.

Richmond County. Shipton Branch voted \$6 for school prizes and had a talk by a clinic nurse. Spooner Pond had a knitting contest, and Malbourne Ridge had an address on Health by a clinic nurse. Cleveland Branch had a chicken pie supper for men in the Services. The sum of \$5 was sent to Sherbrooke Hospital. This Branch realized over \$53 from a booth at a Street Fair in Richmond. Improvements were made to the exterior of the Hall. New films were placed in the Hall and social events planned for each winter month.

Rouville County. Abbotsford Branch had an interesting paper on the Life of Winston Churchill by Mrs. J. J. Gill.

Sherbrooke County. Ascot Branch had a splendid address by the Q.W.I. Demonstrator-Secretary, Miss Barbara Fletcher on Home Decoration and the History of Furniture. Belvidere Branch netted nearly \$24 from a rum-

mage sale. Excellent papers on Winston Churchill and Franklin Roosevelt were on the programme. Cherry River held a "mystery sale" and had several interesting items read on various subjects. Lennoxville Branch had a paper and talk on Norway and Norse sailors by Mr. W. H. Hartley, which was very informative. Milby planned a Hallowe'en party, and arranged to supply hot school lunches. A collection of vegetables, first used as an exhibit with prizes, was afterwards sent to the Salvation Army. Orford Branch entertained the County quarterly meeting at which Miss Fletcher was present, giving much valuable advice and assistance along all lines.

Stanstead County. Ayer's Cliff discussed the prizes to be awarded at the school opening and several interesting articles were read by the convener of legislation. This branch had a reception for the staff of the local high school.

Beebe had a programme on Welfare and Health with Mrs. Brenda Feeley, school nurse for the city of Newport, Vt., as guest speaker. Mrs. Feeley spoke of her work in that city and also gave a brief account of the system of public health in Vermont. The convener of this department reported the annual medical inspection in the local school when 125 children had been examined. Five pupils from this school received prizes in the county project at the recent school fair. Another interesting feature of this meeting was a questionnaire conducted by the convener of Home Economics on "The Consumer's News" and other pamphlets on the work of that department. Over 50 jars of jams and jellies were sent to the Wales Home and a corresponding amount to the Catholic Home for the Aged in Sherbrooke. Four boxes have been sent already by this branch to boys in North Africa and more are being planned for others in the forces.

Forty-two children have been immunized for diphtheria by the Hatley Branch, the Institute bearing the full expense of this highly commendable project. One ditty bag has been filled. Three dollars were voted for prizes for the school opening and the members are cooperating with the teachers in making plans for a hot lunch to be served in the school.

Stanstead North is also starting plans for that important work, hot lunches in the school. A card party has been held at the home of one of the members to enlarge the fund for this purpose. Plans were made for the annual dinner and "auction" always an amusing and lucrative event. Old fashioned garments and embroideries were on display at this meeting and created much interest. Twelve boxes have been sent overseas to the "boys".

Tomifobia had an interesting programme on Home Economics. The convener of that department gave a most informative talk on "Canadian Food Industries" and conducted a questionnaire on that subject.

Shefford County. Warden Branch held a social evening and supper with a programme for members and families. Granby Hill held a members' night with supper and entertainment.

"Clothing in Wartime"

by Helen Daubney

In our wartime economy, civilian and military needs must be balanced and related to each other. If civilian production were not controlled, military production would suffer. Therefore, we must accept the fact that from such resources as are available after military needs are met, just come the civilian goods.

Canada's textile industry has grown by leaps and bounds. For four years this industry has been producing in ever increasing volume — yarn, cloth and clothing according to rigid specifications for Allied Nations' fighters. Every type of cloth intended for uniforms, such as melton, serge, shirting, gabardines, knitted fabrics, fabrics for protecting equipment such as tarpaulins and camouflage nets, and fabrics used in munitions, are sent from various mills in Canada to the National Research Council in Ottawa. Here, in the Textile Division, samples are tested according to specifications drawn up by the Inspection Board of the United Kingdom and Canada. These tests are done to find the fibre content (to determine the amount of wool, cotton, silk or rayon contained), the strength, the wearing properties, the fastness to light, to perspiration, to rubbing and weathering. If the samples sent in pass the rigid tests, the Inspection Board will give out orders to the mills sending in satisfactory samples for so many thousand yards of cloth or so many thousand pair of socks as the case may be.

And now to turn to civilian clothing. On December 1, 1941, an all-over price ceiling program was embarked upon and prices were frozen as of September 15 to October 11. The Wartime Prices and Trade Board now assumed the functions of maintaining prices as well as securing adequate civilian supplies and distributing them fairly. There are three primary administrators in the textile and clothing field who deal with wool, cotton and rayon. As well, there are nine secondary administrators to deal with fine clothing, women's, misses' and children's wear, women's coats and suits, men's and boy's furnishings, knit goods, work clothing, footwear, furs and textile sundries. Each of these men has been chosen from the industry he represents and hence has a close knowledge of both trade practices and personnel.

However, with shortages in supply, labour and industrial capacity, the government must rely on individual citizens to conserve what they have and to limit purchases to essentials if rationing of clothing is to be averted. These two ideas we might keep before us — to buy only what we need, and to conserve what we have.

By the use of our needles and by good planning, we may remake what we have on hand and so reduce our purchases. This can be a fascinating business and so many women are doing it now, we all feel we must be in the game too.

Here are some makeovers that could be undertaken.

A coat may be made into a more becoming style, or into a suit for a smaller person. A man's suit could be made into a lady's suit — and some very smart ones have been made. There are great possibilities here because of the good-wearing qualities of men's woolens and worsteds. An evening dress may be made into an afternoon dress, a negligée, a blouse or a slip — depending upon the fabric. An afternoon dress may be renewed by recutting the neckline and adding a smart collar and cuff set. By buying a yard or so of velveteen or plaid taffeta, an old dress may be brightened up to give two years' more wear. If the sleeves and upper part of the dress are worn, a yoke and sleeves may be cut from the new fabrics and an attractive dress is the result.

Thus, with ingenuity and a little skill, we may care for the clothes we have and remake the unwearables.

War Services Report

Mrs. Howard Smith, Convener

Huntingdon County. Huntingdon Branch filled 6 ditty bags and Aubrey-Riverfield sent 8 boxes overseas and sold poppies on Remembrance Day. Hemmingford filled 3 ditty bags, and Franklin Centre 6, also made 6 quilts for Red Cross.

Compton County. Canterbury Branch sent \$10.00 to help English Nursery Schools, and \$16.00 to Switzerland for refugees from the Junior Red Cross. Dundee filled 4 ditty bags, and 13 boxes for overseas.

Shefford County. Shefford Branch filled 5 ditty bags and Granby sent Christmas boxes overseas, and did Red Cross work.

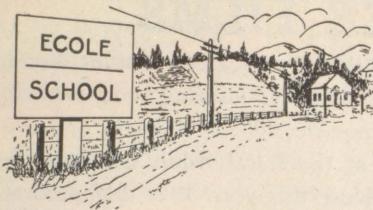
Lachute County. Ormstown Branch made 5 ditty bags and Bristol Busy Bees 3. The sum of \$100 was voted to Red Cross by this Branch.

Richmond County. Red Cross work included 33 knitted and sewn articles for Red Cross, 83 cakes of maple sugar for sailors, 31 knitted and sewn articles for Bundles for Britain also a layette.

Rouville County. decided to send each month chocolate and other comforts for men in the services.

Sherbrooke County. Ascot and Belvidere Branches again co-operated in making apple jam for Britain, Ascot donating 100 pounds of sugar and Belvidere providing the apples. Milby voted \$5 to assist the Red Cross group pack Christmas boxes for overseas. Lennoxville donated the prize of \$6 for making the largest number of leather vests for the Norwegian sailors to the Norwegian Relief Fund and had a program on Norway at the monthly meeting. Orford Branch reports 1 pair sea-boot stockings, 1 pair two-way mittens, 2 pair hurricane mittens, three long sleeved turtle neck sweaters, 4 ditty bags filled, 1 baby jacket, 1 pair air-force gloves.

Stanstead County. Two ditty bags, eight boxes sent overseas.



LIVING AND LEARNING



HOW TO GET BY WITH FEWER MEETINGS

We know it is not quite fair to raise false hopes by posing such a question. Every busy person who shows any interest in his community runs the risk of getting drawn into an endless series of meetings, committees and conferences which too often leave him bored and despairing. We would like to give such a man speedy and permanent release. But, frankly, we have found no easy solution. The human animal is incurably gregarious. He loves to meet, and it is essential to his balance of mind, his good judgment and his general welfare that he sharpen his wits with his fellows. Moreover, in a modern and democratic society he has learned to do some of his best work in co-operation with others. Some meetings are, and will continue to be, necessary.

But, perhaps a few things may be said in this crowded and demanding time both to those who plan meetings and those who have to attend them, which will help to give the satisfaction of greater achievement all round.

Don't call a meeting unless there is a real purpose to be served. We cannot afford the time, the energy or the cost of transportation for as many meetings as we used to have. And, besides, a good many meetings can be eliminated without serious loss. A consultation of officers over the telephone or by mail will sometimes serve the purpose as well.

Use the mails more. Frequently a circular to the members keeping them informed of action taken by the officers, or providing them with information that they might have secured at the meeting, will be quite satisfactory.

Read more. A well-known co-operative leader says; "A man can sit by his reading lamp and get four times as much information as he can from any meeting — and in much less time". This is true, if he has the right things to read, and does read them.

But don't do without a meeting if it is really necessary. Some kinds of economy are very unwise in the long run. Some meetings ought not to be done without. Even in wartime,—perhaps more so in wartime — people need, at least occasionally, to get together. The social give-and-take, itself, is valuable. It results in increased interest, stimulates thought, gives encouragement and even inspiration. It makes co-operation possible. When people get together to discuss policy and make plans democracy has a chance to function; members qualify each others judgment. A Farm Forum leader who reads the weekly reports

says that he gets many extreme views in letters from individuals but the opinions of groups are always well-balanced and wise. Moreover, when members meet regularly there is much less chance of a secretary or manager "running the show".

When meetings are held make them count. Plan carefully ahead of time. Draw up the list of items to be dealt with. Put information on the topics to be discussed in the hands of the members in advance of the meeting. Arrange for a good Chairman. Present concrete proposals; don't waste time in aimless discussion of policy. Make definite decisions and delegate authority for implementing them. Don't let people leave with the feeling that nothing was done.

In many cases it is not meetings that weary people but "poor meetings". Be sure that your next one is *good*.

Community Schools Move North

The Community School recently organized in Buckingham is the first school north of the St. Lawrence River, and is unique in its conception and organization.

Buckingham is an industrial town with a predominantly French population. It has an English School under the principalship of Wendell Roberts. The local Lions Club took the initiative. They decided Buckingham should have a Community School and that it should include everyone: French and English.

The school opened on November 9th. Two hundred and fifty-seven students had registered by the third meeting. More are expected, although the over-worked executive would have been happy with less in the first year.

Courses include conversational French, Conversational English, Horticulture, Motor Mechanics, Dress-making, and Nutrition. Spacious quarters are provided by the local Catholic Seminary. The movie projector is provided by the Protestant School.

The Buckingham School will have five sessions before Christmas and five after Christmas.

An application for membership in the Quebec Council of Community Schools has also come from Muriel Lutes of Harrington Harbour in the Quebec Labrador. We hope to publish more information about this school at a later date.

Truly the Community School idea is going north.

MANY NEW CENTRES SEE FILMS

9,126 persons in 38 centres saw the films shown by the Travelling Theatres of the National Film Board in October. In November the number of centres had increased to 52. Attendance figures are not yet available but a corresponding increase in number attending is evident.

This addition of several thousand over last year is the result of a good deal of ingenuity in organizing. Circuit I carries on in twenty centres with Robert Taylor as projectionist very much as it has in previous years. Circuits II and III which were begun last year have been extended. Several centres were abandoned as distribution points but many new ones have been added.

On Circuits II and III films are generally shipped to centres which have projectors. But since, many other centres near these projectors would like to have the films as well — several school boards have generously loaned their projectors.

For instance Principal O. E. Lewis of Coaticook took the films and the High School projector to Dixville on December 13th after showing them to his school children that afternoon, and then on December 14th to the Barnston people where the showing is promoted by the Barnston listening groups. Again on December 14, Principal Pickford of Waterloo drove over to Foster to show films there with the Waterloo projector. On December 17, Principal Somerville showed films in Kingsbury with the Richmond Projector. This generous and farsighted policy of these school boards, and the fine spirit of co-operation

shown by these three principals enables hundreds of people to see films on better farming and better citizenship in their own communities.

The projector of the Rural Adult Education Service is being put to good use this year. It is deposited at W. A. MacDougall's office at Lennoxville. Let's see how it was used last month.

On November 18, Warren Ross picked it up to show films in the Brompton Road Community Hall. He returned the projector immediately in order that Mr. McCleary could pick it up with his milk truck for the showing on the 22 in East Hatley. The next night the Anglican and United ministers in East Hatley took the films to Ways Mills for a showing there. Mr. McCleary returned the projector to Lennoxville on the 24th in order that the Ascot people could pick it up for their show on the 26th — it was held over there for a day or two in order that the principal, Miss Smart, could use it to show films from the Department of Education at Quebec.

From there the projector went to Bulwer and Birchtown where it was looked after by the Rev. Johnson of the United Church in these two centres. Thence it went to Sawyerville for a showing on December 3, and subsequently was used by Principal Perkins in the school with department films.

By such complicated means over 700 more people enjoyed the films.

The film circuits this year are being directed by Mrs. Eleanor Sim.

FARM FORUMS—OFF TO A GOOD START

The Quebec Farm Forums are away to a good beginning this year. Rallies were held in the centres reported in last month's Journal. Great interest, and a renewed determination to make the Forums work was expressed everywhere, although many members put in a bid for a little better winter, especially on Monday nights. The general conclusion was, "The weather will be better than last winter because it couldn't be worse; so we'll carry on as usual — only more so."

"Only more so," applies to many Forums. Around Howick, for instance, the groups are as thick now as three in a seat, and some groups have recruited new members.

After the broadcast of November 15th, sixty-three groups reported.

The Forum Findings sheet has two pages this year, and most of the groups seem to be able to fill in the extra space — and often run over on the back of the page.

It is hoped that any Forum members visiting the College this winter will drop in at the Farm Forum office to read over the Findings sheets. Some groups think out their questions better than others. Last week two groups

seemed to contradict their statement in Question one, by an opposite statement in No. 3. We doubt if these groups spent enough time reading the printed material, or just thinking about the questions.

Last year one Forum member said, "I try to read the printed matter on Tuesday. Then during the week it is surprising how much I notice in the papers about that very question. By next Monday night, I'm all primed for discussion".

This important fact should be realized that in these groups we are training for action. Many groups have acted already, as in the case of the maple syrup question. Those who have will realize that if they had not been meeting in Forums — if they had not studied their economics — they would not have been nearly as well-equipped to tackle practical questions.

It is a tribute to Quebec farmers that, in spite of their problems — particularly of overwork and the labour shortage — they should devote the time they do to the Forums.

Monday night is Forum night. And on Monday night

farmers who attend Forum meetings are investing one night in the future. It is like putting money in the bank. It doesn't do you a bit of good to have it there. It won't buy food clothing or shelter as long as it's in the bank. But it's re-assuring to have it there. It's like having a shed full of dry wood. You won't burn it as long as it's in the shed — but you know it's there to burn when the thermometer goes down.

To be a Forum member, to know thousands of other farmers are in Forums, to understand that these are in close touch with the Canadian Federation of Agriculture is no small thing. It will come in handy sometime, never fear.

So putting one night a week into Farm Forums — that is, into thought and study and getting acquainted with your neighbour and his ideas — is an investment. It is an act of faith in the future. It signifies that you believe that along with the other farmers you have confidence that the position of agriculture in the economy of Canada can be improved.

A City Invincible

by J. B. Priestley

We will hope, and keep on hoping. And every time we find a spark of hope and vision in anybody, we will blow it into a blaze. They will tell us we can't change human nature. That's one of the oldest excuses for doing nothing. And it isn't true. We've been changing human nature for thousands of years. But what you can't change in it — no, not with guns or whips or red-hot bars — is man's eternal desire and vision and hope for making the world a better place to live in. And wherever you go now — up and down and across the seven seas — you can see this desire and vision and hope bigger and stronger than ever, beginning to light up men's faces, giving a lift to their voices. Not every man nor every woman wants to cry out for it — but there's one here, one there, a few down this street, some more down that street — until you begin to see there are millions of us — yes, armies and armies of us — enough to build ten thousand new cities — where men and women do not work for machines and money, but machines and money work for men and women — where greed and envy and hate have no place — where want and disease and fear have vanished forever — where nobdy carries a whip and nobody rattles a chain — where men have at last stopped mumbling and gnawing and scratching in dark caves and have come out into the sunlight. And nobody can ever darken it for them again. They're out and free at last.

Years ago old Whitman said it for us:—

"I dreamt. In a dream I saw a city invincible to the attacks of the whole of the rest of the earth. I dreamt that was the new city of friends".

CITIZENS' FORUMS

A provincial office has been recently organized for the province of Quebec to service Citizens' Forum groups, to issue newsletters, distribute material, and to assist communities to set up groups.

Mrs. Gladys Hillman Choquette is in charge of the office which is located at Room 201, 1111 Beaver Hall Hill, Montreal, Telephone MArquette 1059.

Attractive publicity folders containing lists of broadcast titles are available on request, along with a kit of material containing information on organizing and conducting discussion in Citizens' Forums.

Order a Guide for Group Discussion for your group leader. It contains hints and suggestions for successful group discussion. Its forty pages of illustrated matter have attracted the attention of discussion leaders in both country and city all across Canada. The cost is only ten cents.

Christmas Night

Down in the Ward is born this night

A little Jew boy.

In a room that shrinks from the candle's light

On a broken bed, exhausted, white,

A girl is lying; but see how bright

Are her eyes, for joy

That into the world is born this night

A boy, a little Jew boy.

Say, is it cold in the Ward to-night?

Aye, bitter cold;

A Blizzard has swept from the cloud-packed height,

The pawnshop windows are frosted bright,

The rags and bottles all wrapped in white,

Fold upon fold;

Chilled is the mother, so young, so slight —

Yet old, wondrous old.

Who is she that has travailed this night?

Mary her name.

And who is he, this quivering mite

Crying so sad and forlorn, despite

The thin mother-arms that clutch him tight?

This the same

To whom in fearful, dumb delight

Judean shepherds came.

A new star shines in the Ward to-night

Over a little boy;

Elizabeth Street is filled with light,

And see! The snow-swept skies are white

With the wings of Michael's squadron'd might

Singing for joy!

The Word is made flesh once more this night

In a boy, a little Jew boy.



THE COLLEGE PAGE

THE MACDONALD CLAN

Mr. A. R. B. Lockhart passed away at his home in Ste. Anne de Bellevue on November 15th, 1943.

The poet has said "Beauty is Truth, Truth Beauty — that is all we know on earth and all we need to know," and it follows that if one's life work is built upon such a foundation — a foundation of truth and beauty of character, the outcome must of necessity be a joy forever. Such an end is not easily attained. Everything in life must be bought and paid for. Only the man with steel in his make-up can hold fast continually to that which is good. Mr. Lockhart, our beloved teacher and advisor, was such a man.

Some time ago Benjamin Dwight enumerated the specifications for building a teacher. He said, "To be a true teacher, of the highest dimensions of power and qualifications, requires a breadth of resources and qualities natural and acquired, a depth and fullness of means, tact in impressing oneself on others amounting almost to a species of personal magnetism, skill in government, talent in exposition, power in analysis, fullness of knowledge, readiness of illustration, a sense of the beautiful in nature, art, and language, a simplicity of character, a singleness of aim, a patience of spirit, a steadiness of purpose, an acquaintance with human nature and a development of religious feeling and principle, as well as an energy of will, a fire of thought and an amount of physical vigour which, added together, make this field of human endeavour altogether paramount to every other in its demands upon the whole man — his whole time, his whole heart and his whole strength within and without, at all times, in all things."

Mr. Lockhart during his 43 years of service to others, in his quiet way helping troubled individuals to adjust themselves to the group, giving more of his store of strength of mind and body than he could afford to give, making society as a whole always a little better for his efforts, proved himself to be "a true teacher of the highest dimensions."

All who have been his pupils, students or colleagues, must have felt this teacher's understanding sympathy and sincere patience. He had faith in and hope for all human beings. What is more, he showed by the natural way in which he became, year after year, a sort of father confessor



to hundreds of bewildered adolescents, that he really loved people. Their problems, however unimportant (and years later those problems seen in perspective often seemed very inconsequential) were never brushed aside. He gave freely of his unfailing judgment and calm insight to young and old. Many an experienced teacher listened thankfully while, in his slow, kindly way he would look for the good in what had been planned or done, and tactfully suggest what to discard and what to build upon. Often it was with a flash of understanding humour that he settled a question and put his listeners into a happier state of mind.

Because of his study of philosophy and of his depth of knowledge of many subjects, because of his generosity of spirit and his loving interest in his pupils, because of his service to the community and of his extensive work in

general education, his outlook on life became that of a man whose inner life was in tune with the basic principles of good living. Perhaps that is one reason for his fondness for the True-False test. When one "sees life steadily and sees it whole" a statement is either right or it is wrong. Yet he was never arrogant or opinionated, for he had learned one of the most difficult of all human lessons — to dissociate a person's weaknesses from the person's real self. Mr. Lockhart censured the fault but always encouraged the person to see things from a different angle and to "try again."

"Greatness and goodness are not means, but ends!
Hath he not always treasures, always friends,

The good, great man? Three treasures — love and light
And calm thoughts, regular as an infant's breath;
And three firm friends—more sure than day and night,
Himself — his Maker — and the Angel Death."

Those of us who have been privileged to know him, now mourn his passing. One of our most beloved friends has been taken from us. A teacher of his calibre cannot be replaced, nor can his worth be adequately expressed. However, we can justly apply to him what his friend and colleague, the late Dr. Brunt, considered to be the most beautiful sentence in the English language:

"So he passed over, and all the trumpets sounded for him on the other side."

The Secret of Repose

by Mrs. John Henry

There is not much time for reading these days when every one of us is doing a full share of work and then some. Yet this is the very time when we need to learn the secret of repose. It should come easy to country folks for the people who live close to the soil may learn a lot.

You know what happens when a field is put into summer fallow. This means to give the field a rest. Down underneath the surface there is what might be called a reservoir of life, and if the soil is kept working all the time — kept busy growing things, — the life underneath has no chance of coming up, with the result that in a few years the soil becomes poor and cannot carry good crops; so the wise farmer puts it into summer fallow.

People are like the earth. Our best life and our wisdom comes from deep underneath the surface, — sometimes called the subconscious. We all have experienced this subconscious self at work during these days when it seems that we have no time to think in the ordinary way. We lack the power to concentrate, and our little worries and prob-

lems pile up until they appear as mountains of difficulty and almost overpower us because we are trying to straighten them out with half a mind, the other half being busy somewhere else. Fortunately for us after a good night's sleep we appear magically to be able to solve them.

Our minds and our bodies are like the fields. The healing strength is there with all its virtues but we do not give it a chance. I believe its secret is to "go fallow", to stop thinking and worrying and working if only for a little while every day. Students at school have proved the worth of this habit when their brain was so tired that no efficient work could be done. People who have done hard manual labour have proved it too, by relaxing completely in order to renew their strength. We might try it out too during the busy season when the work seems to loom ahead. It will not be wasted time, but will help to renew strength, and help to get our "second wind". Cultivation isn't everything. I'm all out for going fallow once in a while.

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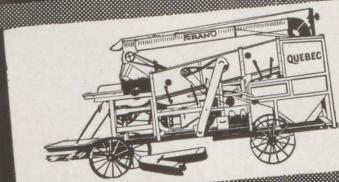
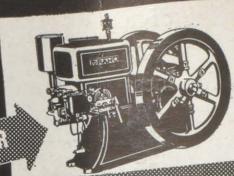
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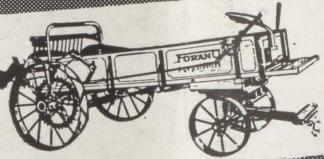
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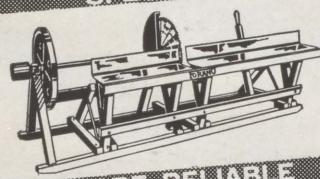
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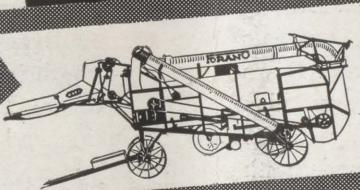
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